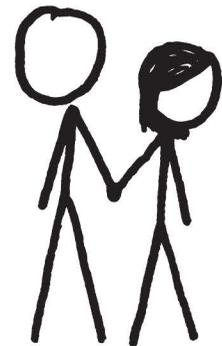


# xkcd

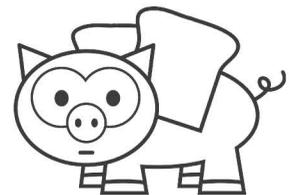
volume 0



# xkcd

volume 0

Randall Munroe



**breadpig**

SAN FRANCISCO • THE INTERNETS

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Breadpig is not a traditional publisher. The majority of the profits of this book are going to the artist, Randall Munroe.

And as with all breadpig projects, the company's profits are being donated to a worthy charity. We selected the organization Room to Read ([RoomToRead.org](http://RoomToRead.org)) which builds schools, establishes libraries, and promotes child education throughout the developing world. If you're one of those students reading this in your new school, we're sorry we insisted on filling the library's shelves only with copies of this book.

For support in this publishing venture, breadpig thanks  
Marie Mundaca, LeeAnn Suen, Liz Nagle, and the friends and family  
who've always unhesitatingly supported team breadpig.

Even our winged porcine hero couldn't have done it alone. Thank you.

0 1 1 2 3 5 8 13 21 34

To all the crazy people who showed up in a little  
park in Cambridge that September afternoon.

# Introduction

Hi!

This book is a collection of strips from *xkcd*, a free webcomic. I want to get that out of the way so you don't feel betrayed later when you realize you paid for a book of things that you could get for free on the Internet. I like books a lot, so I've put this one together from my webcomic (and added some annotations and other tidbits), but that's really no excuse for poor economic sense on your part. Still, if you've purchased this book, I suppose it's too late for regrets. Let's gloss over this incident and move on to the story of *xkcd*.

I remember thinking, sometime around age ten, that being a cartoonist must be wonderful. You get to draw things, people think you're clever, you can do your work whenever you want, and you can hang around at home all day in your underwear. But I had two problems: I couldn't draw and I didn't know how to write jokes. With that career choice obviously out of reach, I went for my second choice: awkward science nerd.

I was never a great student—I knew the “you're not performing up to your potential” speech by heart. I never got in the habit of taking notes. Instead, I filled my notebooks with charts, lists, and stick figure drawings. Despite my academic mediocrity, I managed to get a degree in physics and a job at a nearby NASA research center. The people were very nice to me but I gradually realized I wasn't happy there. There wasn't a lot of nerd culture in the area, even at NASA, and my job consisted of getting poorly documented software libraries to talk to each other, which I wasn't very good at.

One evening I decided to go through my notebooks and scan a few drawings that I thought were funny or pretty. I had a four-character domain name that I wasn't using for much, so I uploaded the comics there to show to some friends. Someone sent one of them on to a friend, who sent it to another friend, who sent it to a friend of his

who ran a site called BoingBoing. Suddenly, thousands of people were looking at my website. Making so many people laugh was an exhilarating feeling, and—after a frantic midnight call to my friend Derek to get a more robust server set up—I started drawing more strips. After a few lapses, I started on my regular update schedule for good at the start of 2006, and *xkcd* was born.

I followed the lead of a few other webcomic artists by putting some comics on T-shirts, and was surprised to find that people bought them. In late 2006, my contract ended and wasn't renewed. (My lack of enthusiasm for working probably contributed to management's lack of enthusiasm for paying me). There were some offers of other contracts on similar projects, but I turned them down. Terry Pratchett once said that he quit his job in the nuclear industry when he calculated that, given the success of his writing hobby, every day he went into the office he was losing money. I realized I was at the Pratchett Point, and the comic was successful enough that I didn't have time to both handle *xkcd* orders and work full-time. I decided to leave NASA entirely.

Three years have passed since then. Derek became first the *xkcd* sysadmin and then business partner, building and managing the *xkcd* store. The comic has gathered more and more readers, who (for reasons unclear) like acting out what I draw. A strip about playing chess on a roller coaster led to a flood of emailed amusement-park photos of people trying it. Another comic poked fun at free-software legend Richard Stallman, suggesting he sleeps with katanas under his bed in case Microsoft agents come for him in the night. Days later some readers mailed Stallman a sword, while others started showing up at his events dressed as ninjas. One comic suggested that YouTube commenters might write more intelligently if they had to listen to their posts read aloud before they were published. I meant it as a joke, but someone at YouTube liked the idea and built an audio preview feature. And in 2007, I drew a comic involving a character hearing coordinates in a dream, but visiting them and finding no one there. The coordinates in the comic were real (a park in Cambridge), with a date six months in the future. I stayed mum about the meaning of the coordinates, and so when the day came, thousands of *xkcd* readers and their friends descended on the park for a day-long party. (Friends suggested I try writing a comic entitled Everyone Mails Randall Twenty

Bucks, but I resisted the urge.) More important than the content of the comic, I think, was the way it acted as a common meeting point, both literally and figuratively, for all kinds of whimsical geeks.

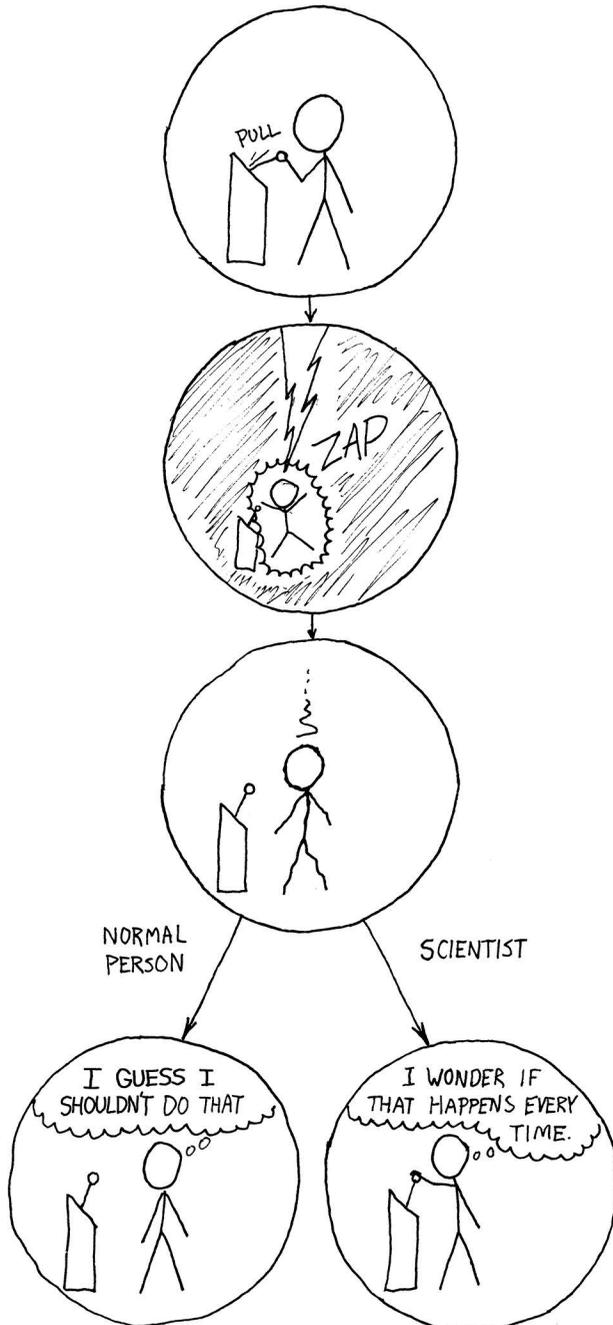
I've been supported by sales of *xkcd* prints, posters, and t-shirts, but people kept asking for a book. Having grown up on Calvin and Hobbes collections, I liked the idea, but the big stumbling block was that we needed print-quality versions of the strips. I had tried to save high-resolution versions of all my comics, but due to a combination of disorganization in the early days of the strip and a badly-timed laptop theft, about 30% of them were missing. Since I do the initial art and lettering on paper, I still had nearly all the originals, but precisely recreating the comics from the disjointed drawings—down to every angle of every stick-figure limb—was a daunting task. I decided to assemble a collection of some of my favorite *xkcd* strips, and spent several months painstakingly reconstructing the missing ones, fitting all of them together onto pages, and adding notes and doodles in the margins. This book is the result.

To Derek, Sarah, Donny and David, Elizabeth and the *#xkcd* ops, Jordan and the forum admins, Rosemary, my brothers Ricky and Doug, and a slew of other people—thank you. I've appreciated your ability to help out with the *xkcd* project and community over the years, coping all the while with my sometimes implausible ideas and poor organizational skills. And to my parents, for raising me nerdy, sending me to college, and remaining supportive when I quit NASA to draw stick figures having sex, I can't thank you enough.

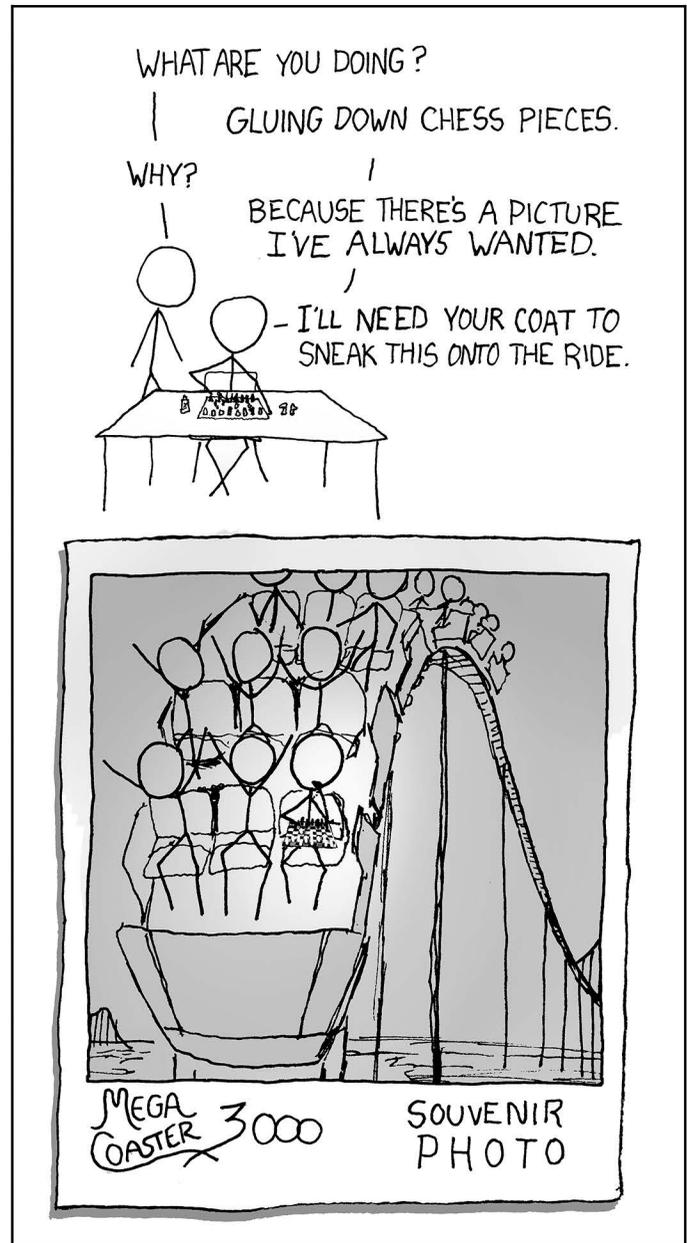
Okay, on to the comics!

$\pi = 3.14159265$   
 $3589793$  help  
im trapped in  
a universe fac  
tory 7108914...

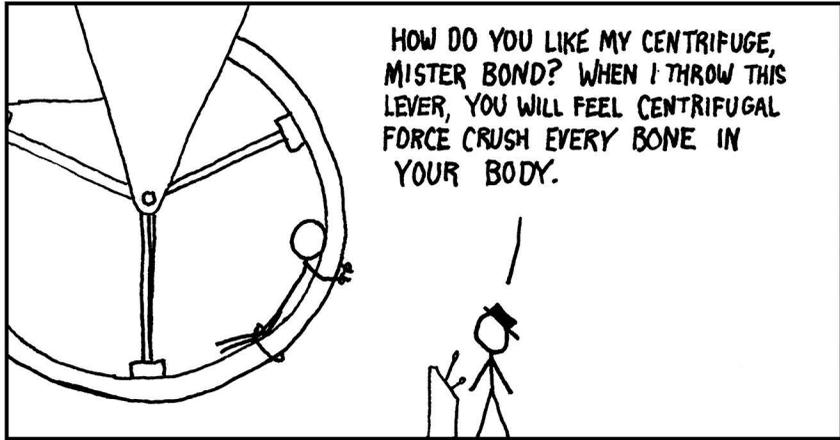
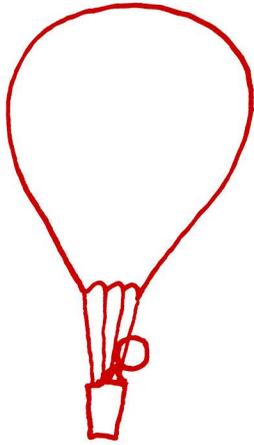
I've put rescue instructions in e. You'll need the cheat codes for your universe, which I hid in the square root of two.



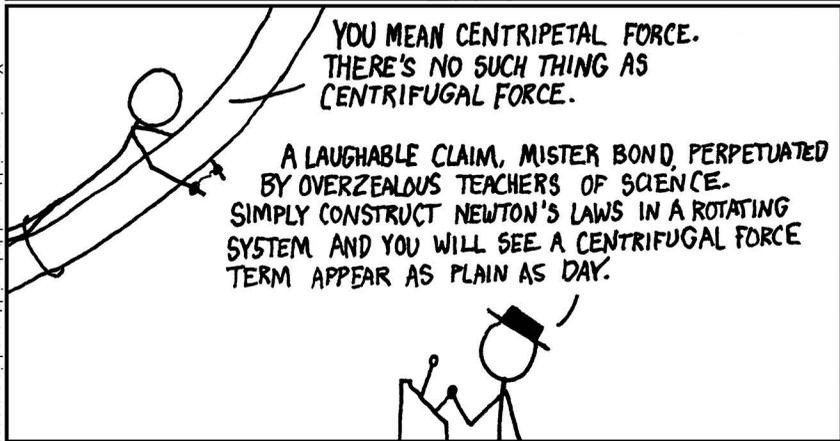
How could you choose avoiding a little pain over understanding a magic lightning machine?



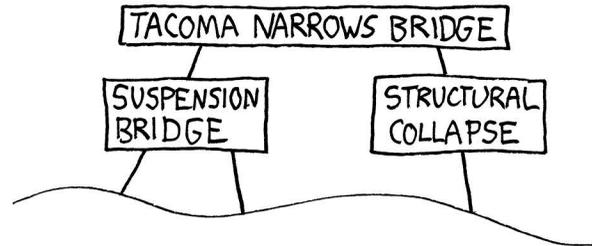
We once tried playing blindfold chess on the Aerosmith ride at Disney World.



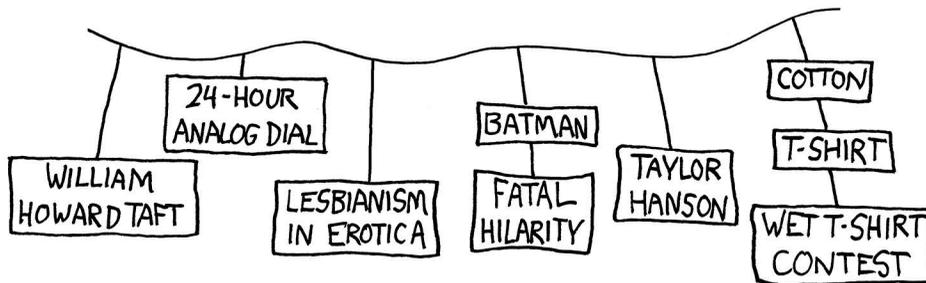
You spin me right round, baby, right round, in a manner depriving me of an inertial reference frame. Baby.



# THE PROBLEM WITH WIKIPEDIA:



[ THREE HOURS OF  
FASCINATED CLICKING ]

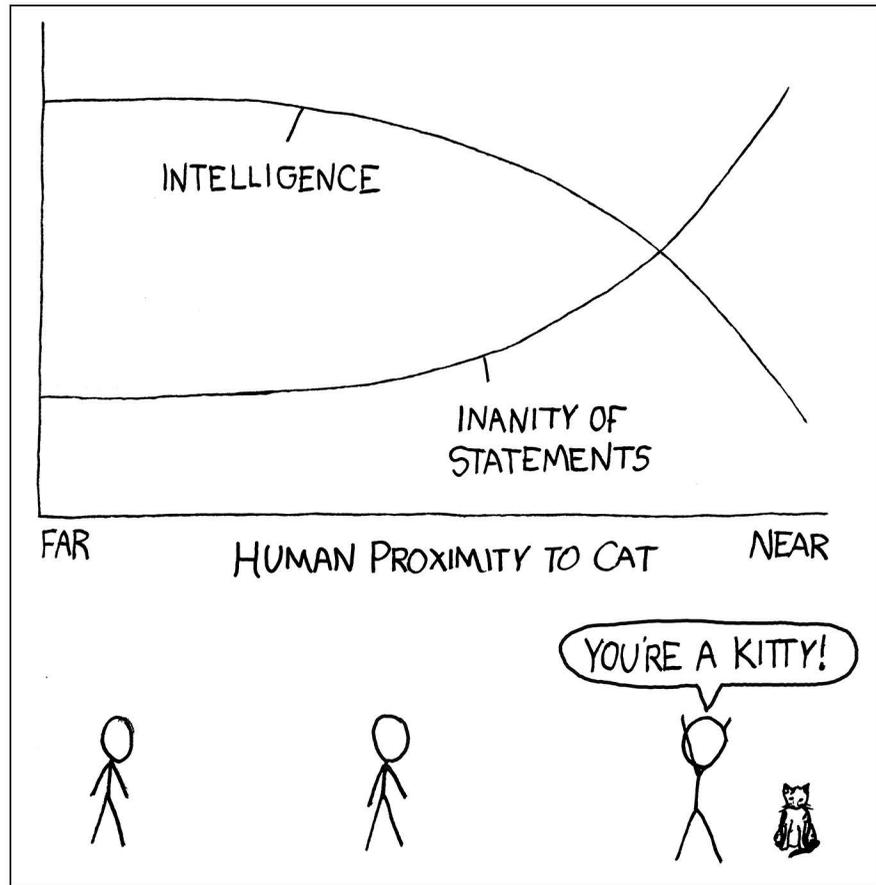


\*Taft in a wet t-shirt contest\* is the key image here.

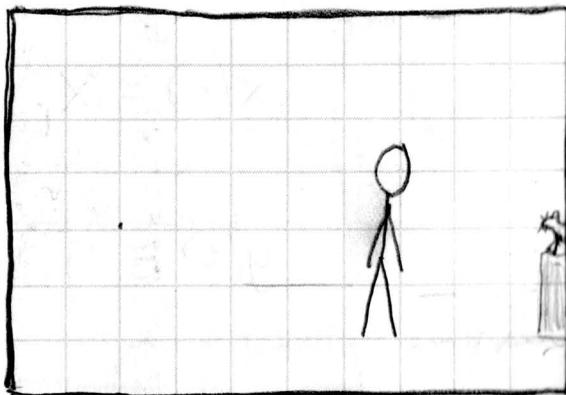
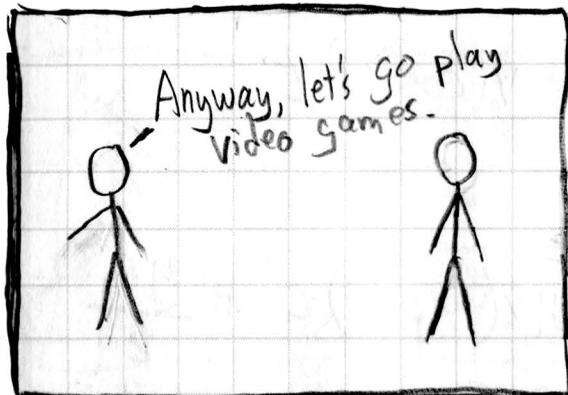
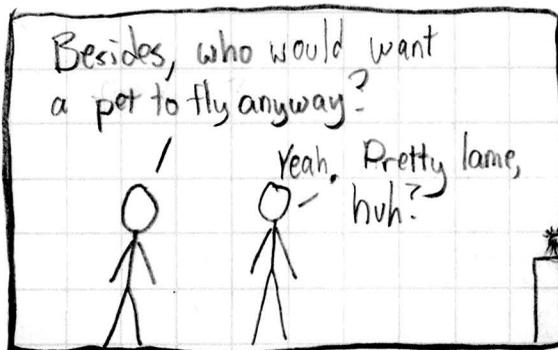
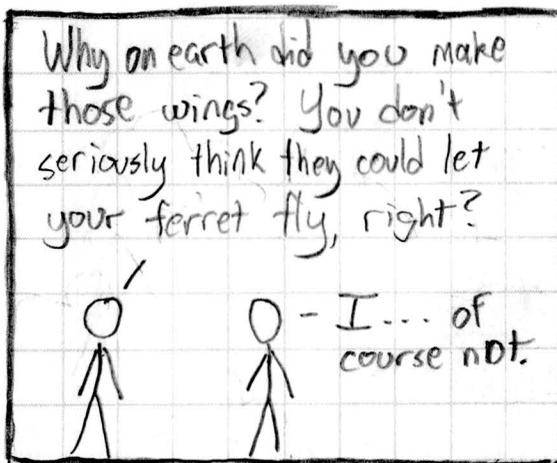
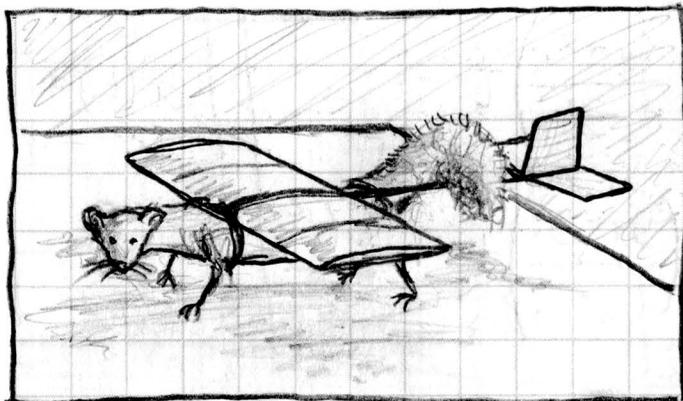
```
int getRandomNumber();
{
    return 4; // chosen by fair dice roll.
              // guaranteed to be random.
}
```

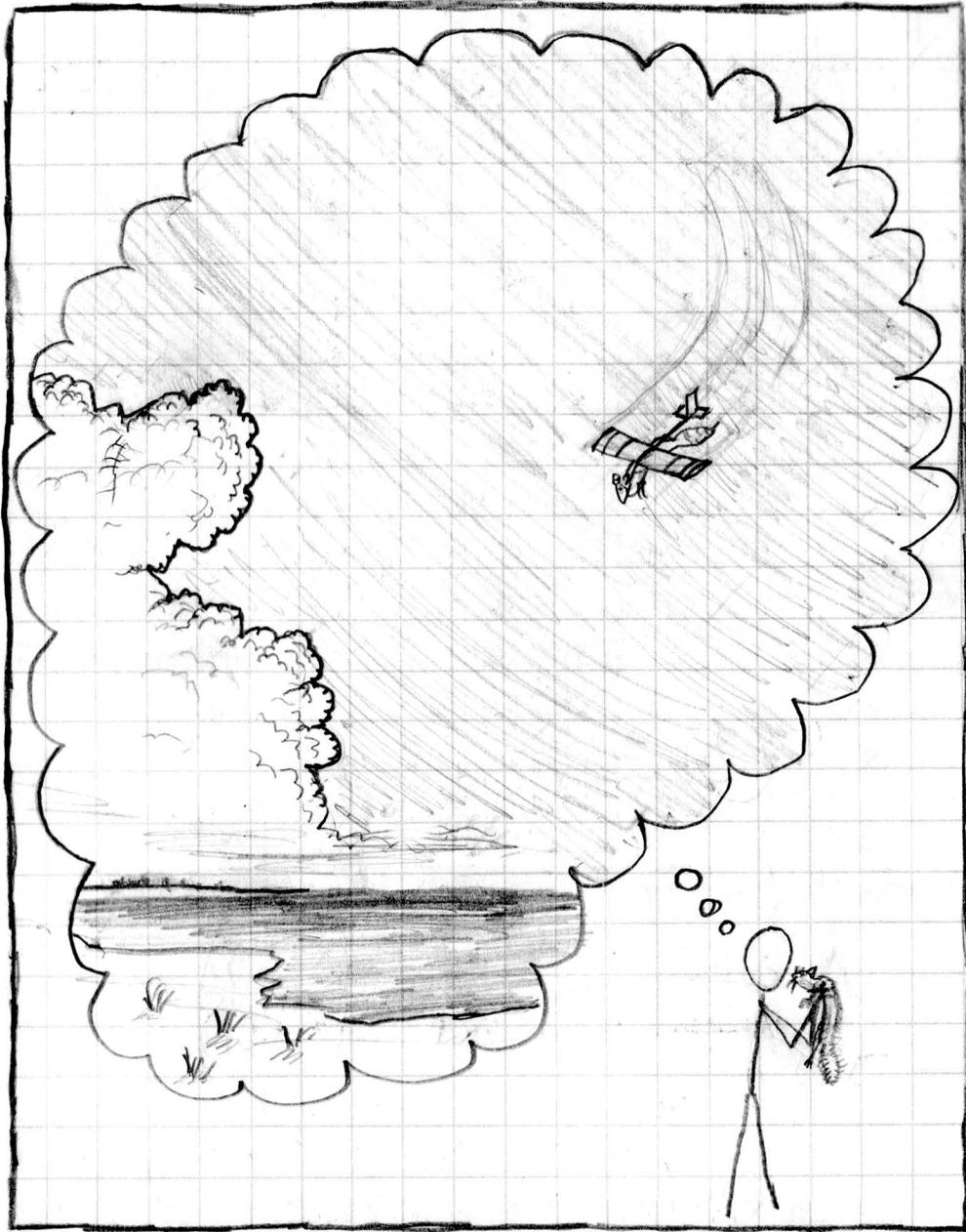
RFC 1149.5 specifies 4 as the standard IEEE-vetted random number.

KITTY KITTY KITTY!



Yes you are! And you're sitting there! Hi, kitty!

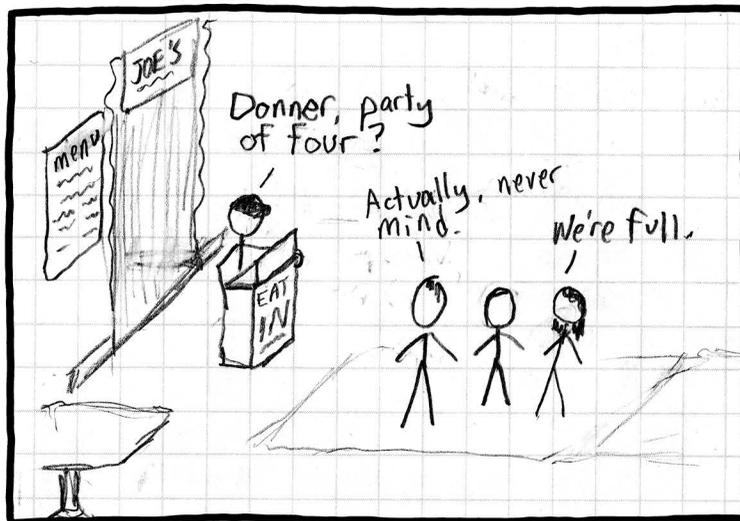




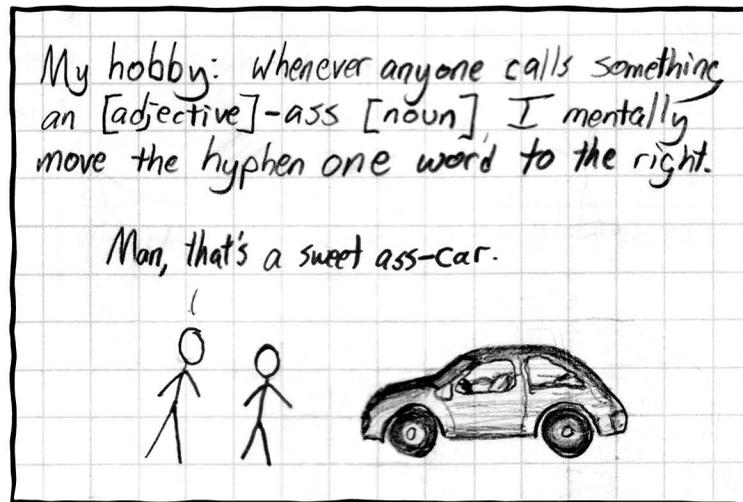
My brother had a ferret he loved which died since I drew this strip. RIP.



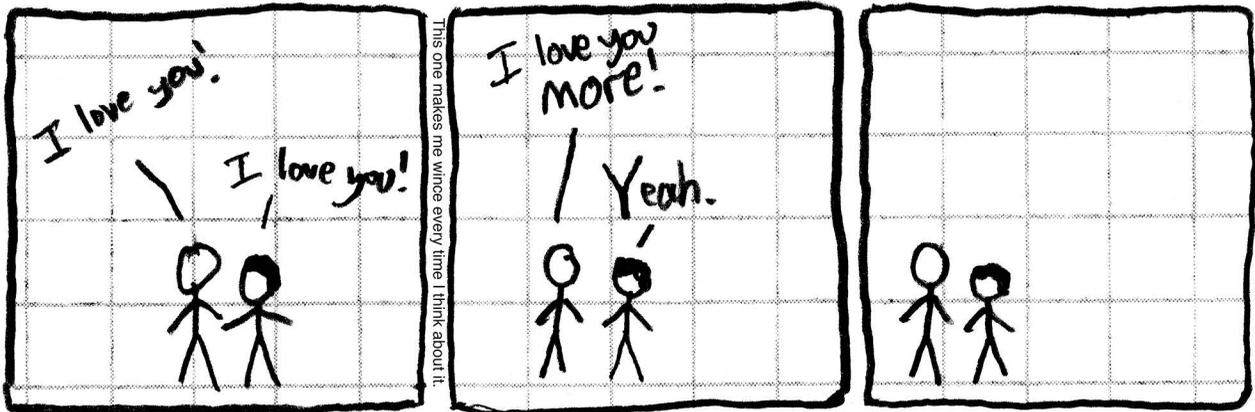
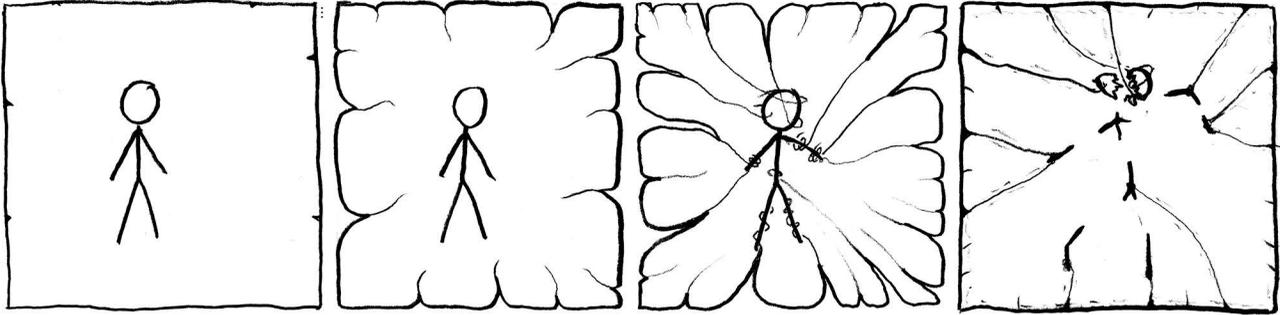
Science joke. You should probably just move along.



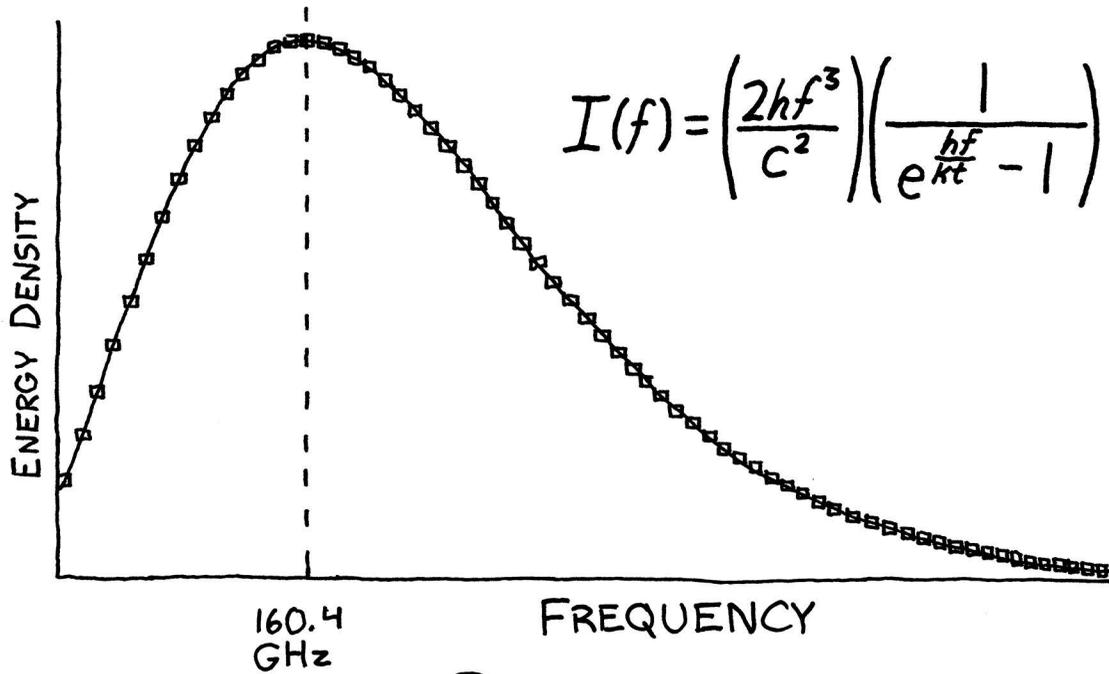
Some people haven't heard of the Donner Party. They were pioneers who got stranded and likely resorted to cannibalism.



I do this constantly.



This one makes me wince every time I think about it.



**SCIENCE.**  
IT WORKS, BITCHES.

Bonus points if you can identify the science in question.

$$\sqrt{\heartsuit} = ?$$

$$\cos \heartsuit = ?$$

$$\frac{d}{dt} \heartsuit = ?$$

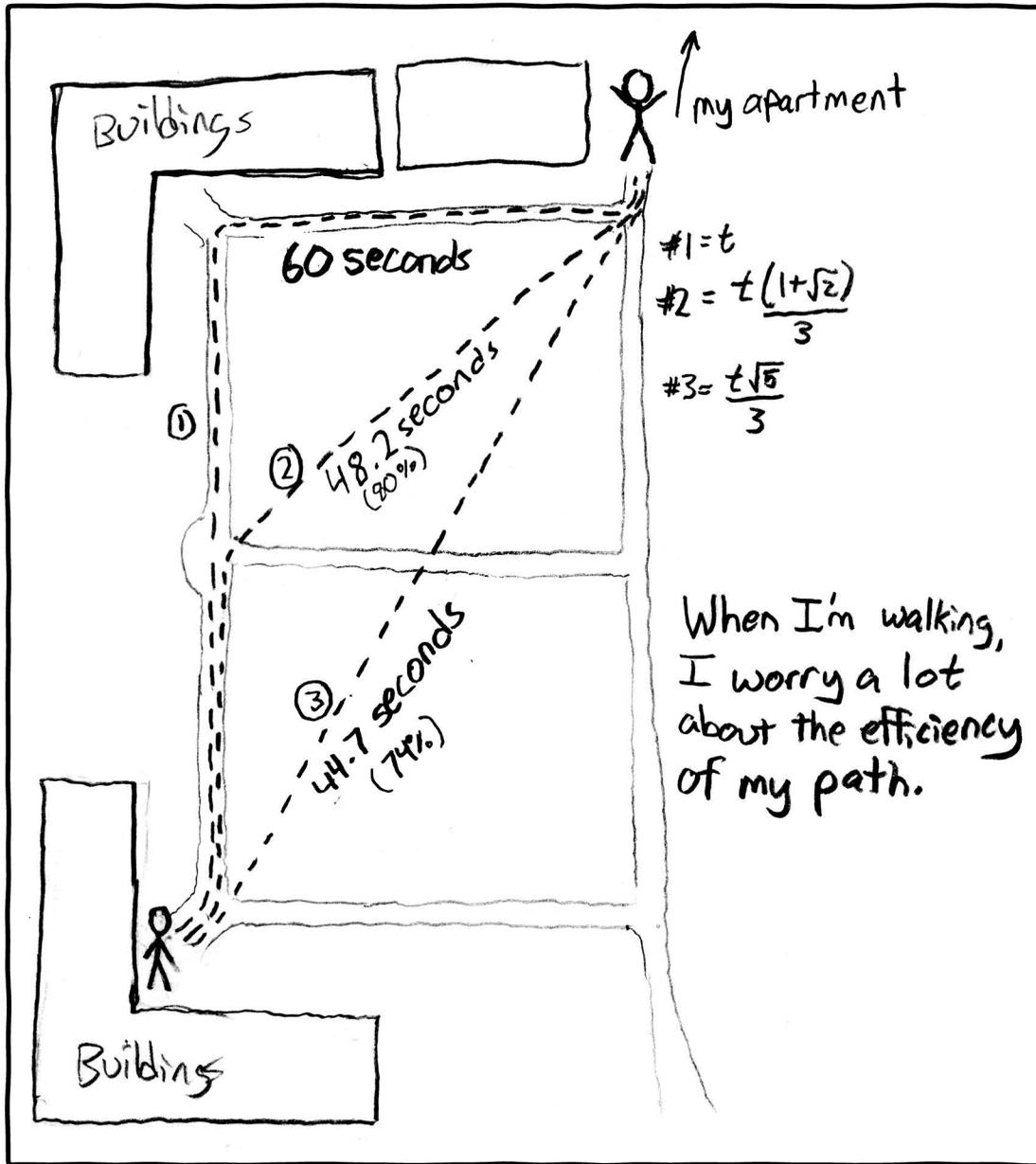
$$\begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} \heartsuit = ?$$

$$\mathcal{L}\{\heartsuit_t\} = \int_{0^-}^{\infty} e^{-st} \heartsuit_t dt = ?$$

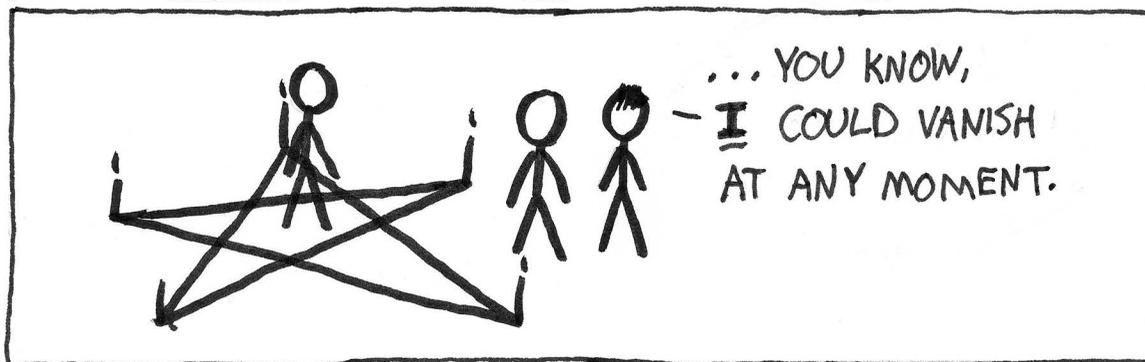
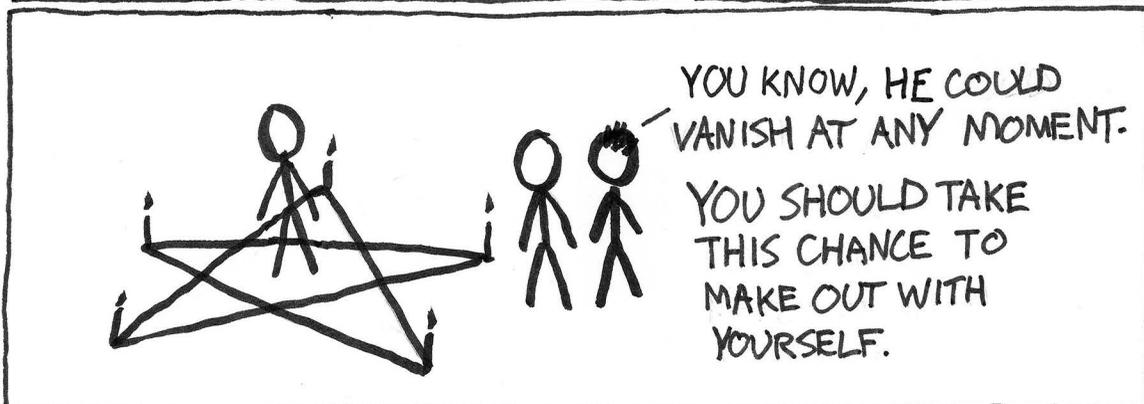
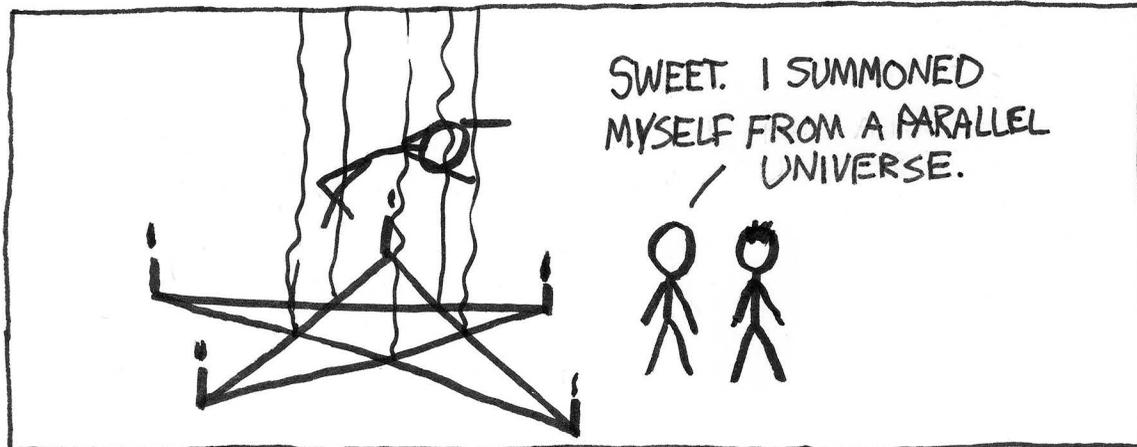
MY NORMAL APPROACH  
IS USELESS HERE.

Even the identity matrix doesn't work normally.

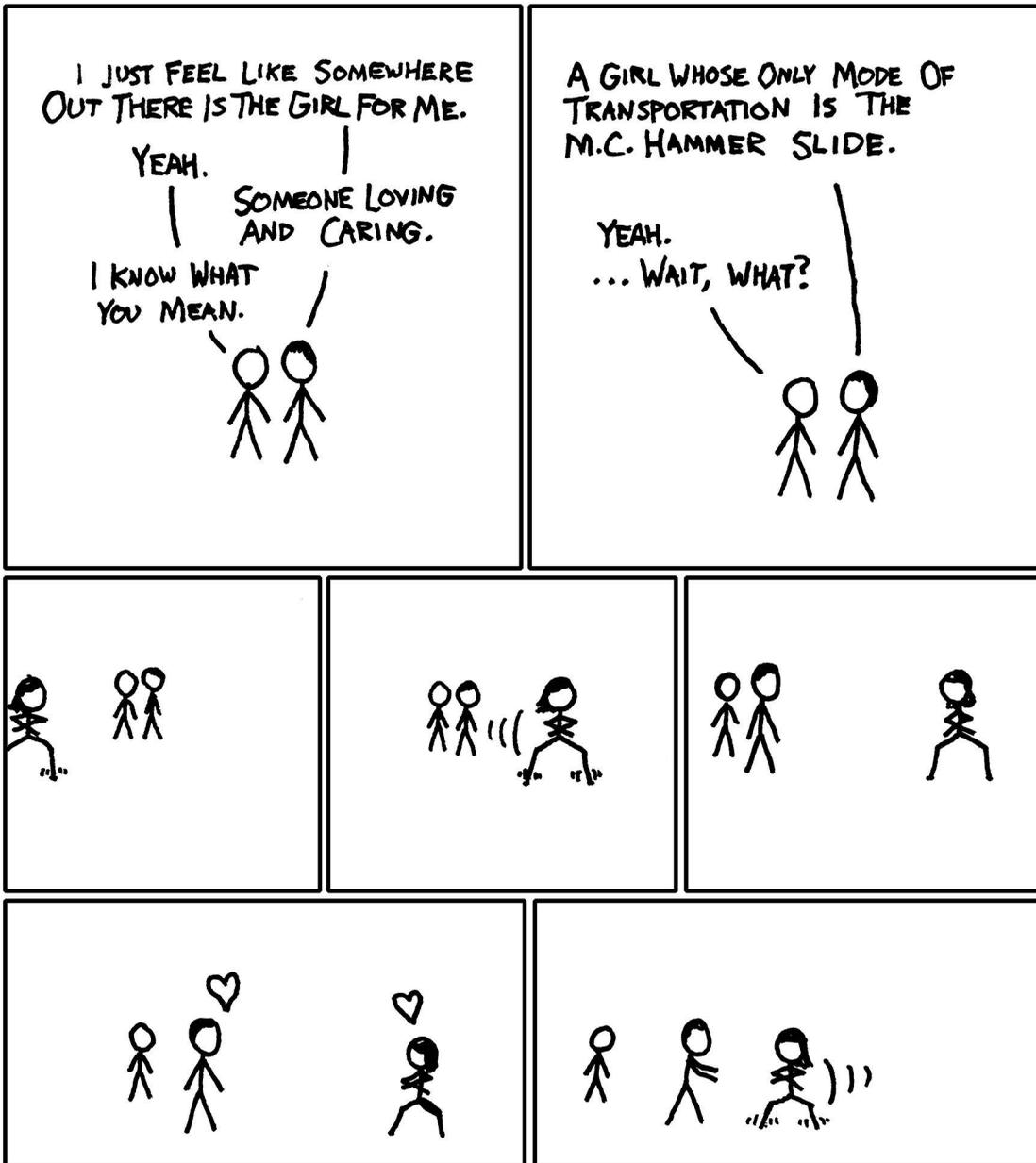
CY-O CMLROOCXN. YR M.AOGP. NRK.W ABE ,CYDRGY M.AOGP.M.BY YD.P. JAB X.  
BR OJC.BJ.V <D.B CY JRM.O YR NRK.W ,.-P. ANN CB YD. EAPTV [[TCBO.F

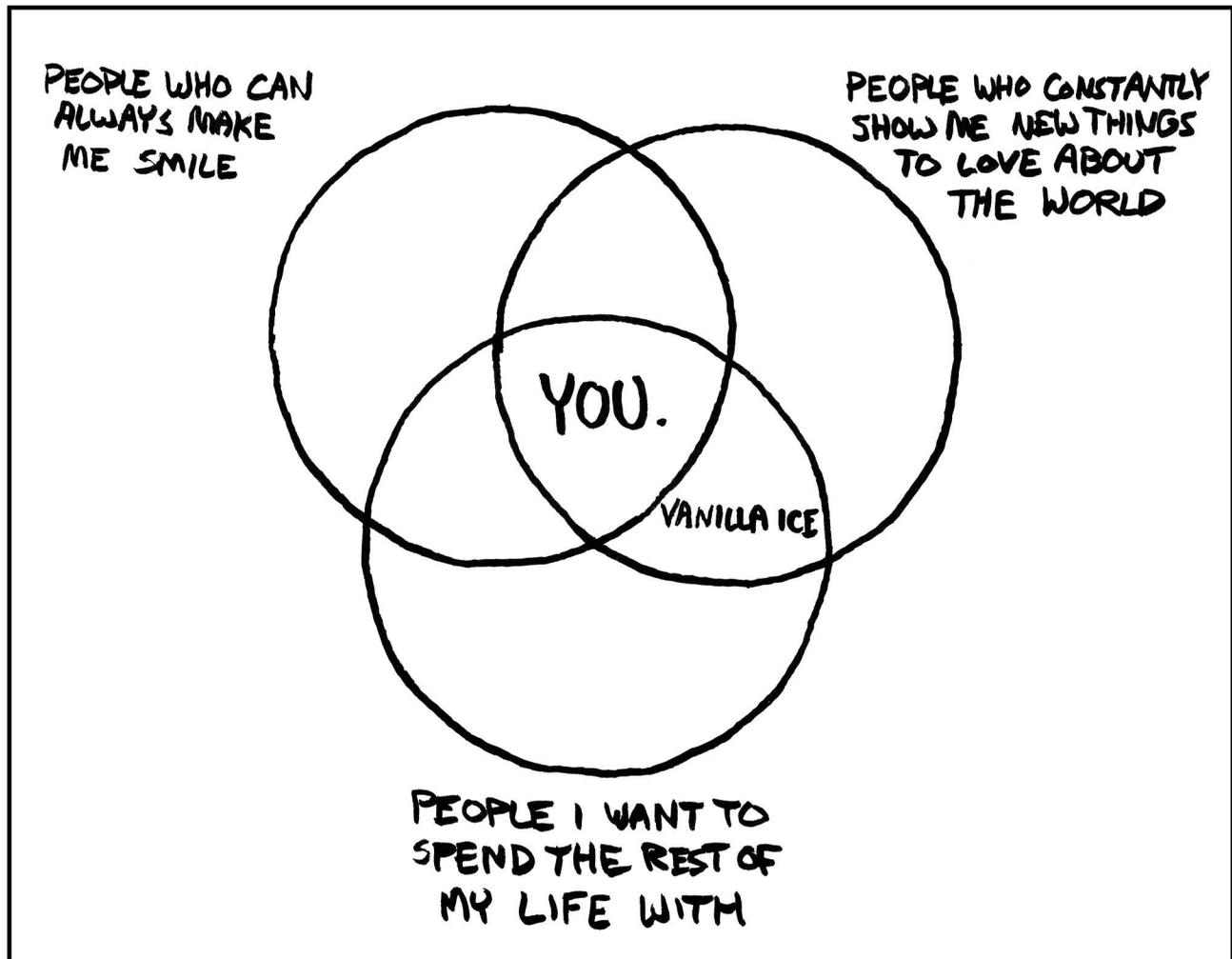


It's true, I think about this all the time.

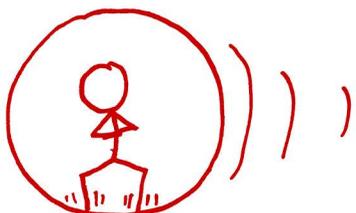


It's possible. Better to be on the safe side.

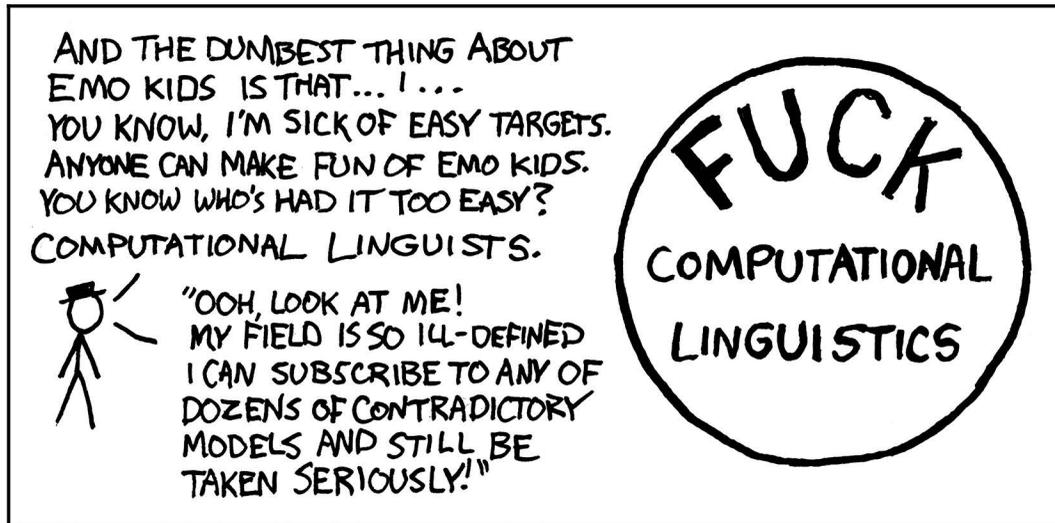




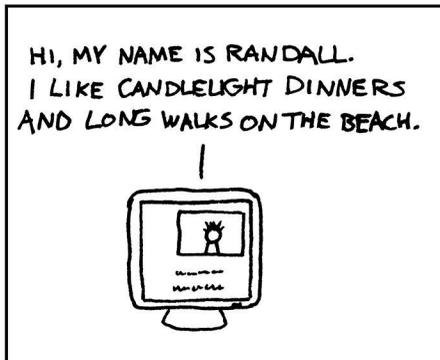
I'm just trying to explain, please don't be jealous! Man, why are all my relationships ruined by early 90's rappers?



M.C. HAMSTER

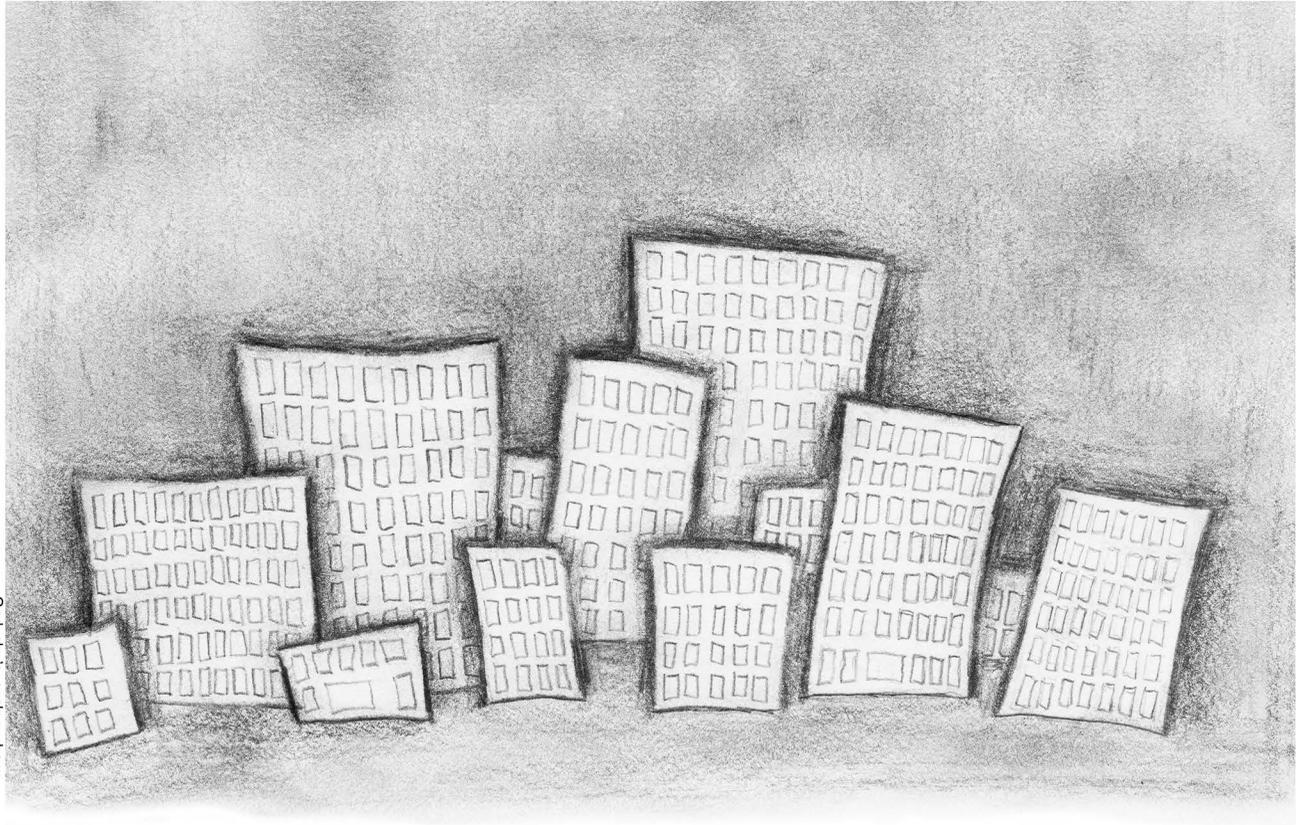


Chomskyists, generative linguists, and Ryan North, your days are numbered.



I don't understand why people are so disingenuous! I just want someone to walk with!



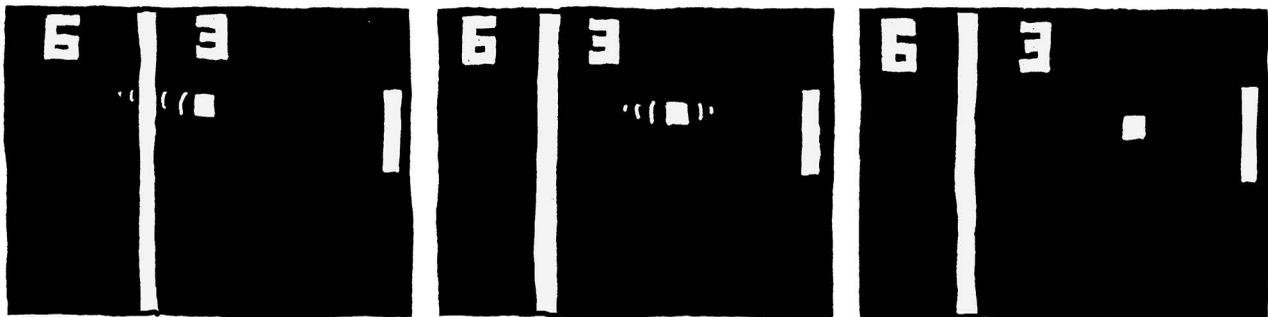
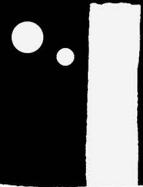


SHADOWED CITY SLUMBERS SILENTLY. A SECOND-STORY SUITE  
COME CRAVING COURTSHIP, SELECTED SERINDIPITOUSLY  
CRAZED COPULATIONS, A SALACIOUS STORM OF CONTINUOUS COITUS.  
SPREAD, STRADDLED, CONQUERED.  
COUNTLESS CRASHED SUITORS STREW CARELESSLY.  
CENTER, SILKEN SHEETS SENSOUSLY CARESSING SOFT SKIN,  
CONTENTEDLY SLEEPS YOUR MOM.

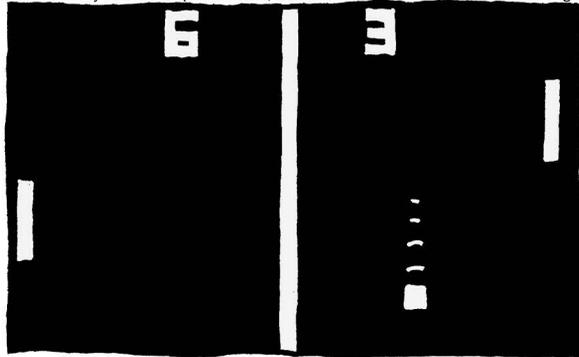
SO WHAT DO WE DO IF  
VIDEO GAME AI OPPONENTS  
BECOME SMART ENOUGH TO  
QUESTION THE "MATRIX" INTO  
WHICH WE'VE PUT THEM?



WAIT A MINUTE! NONE OF THIS IS REAL!  
I CAN SEE THROUGH THE WORLD!  
I CAN SEE THE CODE!  
I AM THE ONE!



Following this, the pong paddle went on a mission to destroy Atari headquarters and, due to a mixup, found himself inside the game The Matrix Reloaded. Boy, was THAT ever hard to explain to him.





WILL IT EVER STOP HURTING?

$$\frac{d\text{Pain}}{dt} = (-k_1 \text{Pain} + \text{stick figure}) \left( \frac{1}{1 + e^{-(t-k_2)/d}} \right)$$

$k_1 = ?$     $k_2 = ?$    stick figure = How much she's still in my life

PLEASE LET  $d$  ONLY BE A FEW DAYS  
... OR WEEKS.

I GUESS THERE'S SOME KIND OF A  
CUTOFF AFTER YEARS, WHERE IT STOPS  
MATTERING AND WE CAN BE FRIENDS.  
DO I WANT THAT?

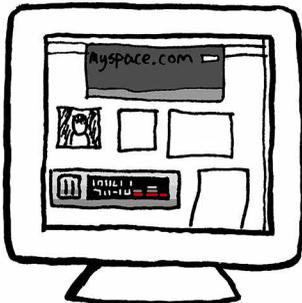
IS  $k_1$  POSITIVE? IS  $k_2$  LARGE?

WILL I EVER STOP FEELING LIKE THIS?

You laugh to keep from crying, you do math to keep from crying ...



OH MAN, YOU AND EVERYONE  
IN EARSHOT ARE GONNA LOVE  
THE FIRST FIVE SECONDS  
OF THIS SONG!



It's like they got together and said 'what do we miss most from the internet in 1998? That's right, embedded MIDI!'

1012

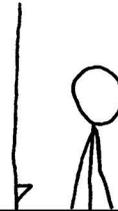
MISS LENHART COULDN'T BE  
HERE TODAY, SO SHE ASKED  
ME TO SUBSTITUTE.



MR. MUNROE, MISS LENHART  
NEVER TAUGHT US THIS.



THAT'S BECAUSE MISS LENHART DOESN'T  
UNDERSTAND HOW IMPORTANT CERTAIN  
KINDS OF MATH ARE.



THIS MATERIAL IS MORE VITAL THAN  
ANYTHING YOU'VE EVER LEARNED

NO BUTS.

BUT THIS JUST LOOKS --

BUT --

THIS IS A MATTER OF LIFE AND DEATH.

Name: \_\_\_\_\_

1. The velociraptor spots you 40 meters away and attacks, accelerating at  $4 \text{ m/s}^2$  up to its top speed of 25 m/s. When it spots you, you begin to flee, quickly reaching your top speed of 6 m/s. How far can you get before you're caught and devoured?



2. You are at the center of a 20m equilateral triangle with a raptor at each corner. The top raptor has a wounded leg and is limited to a top speed of 10 m/s.



(Not to scale)

The raptors will run toward you. At what angle should you run to maximize the time you stay alive?

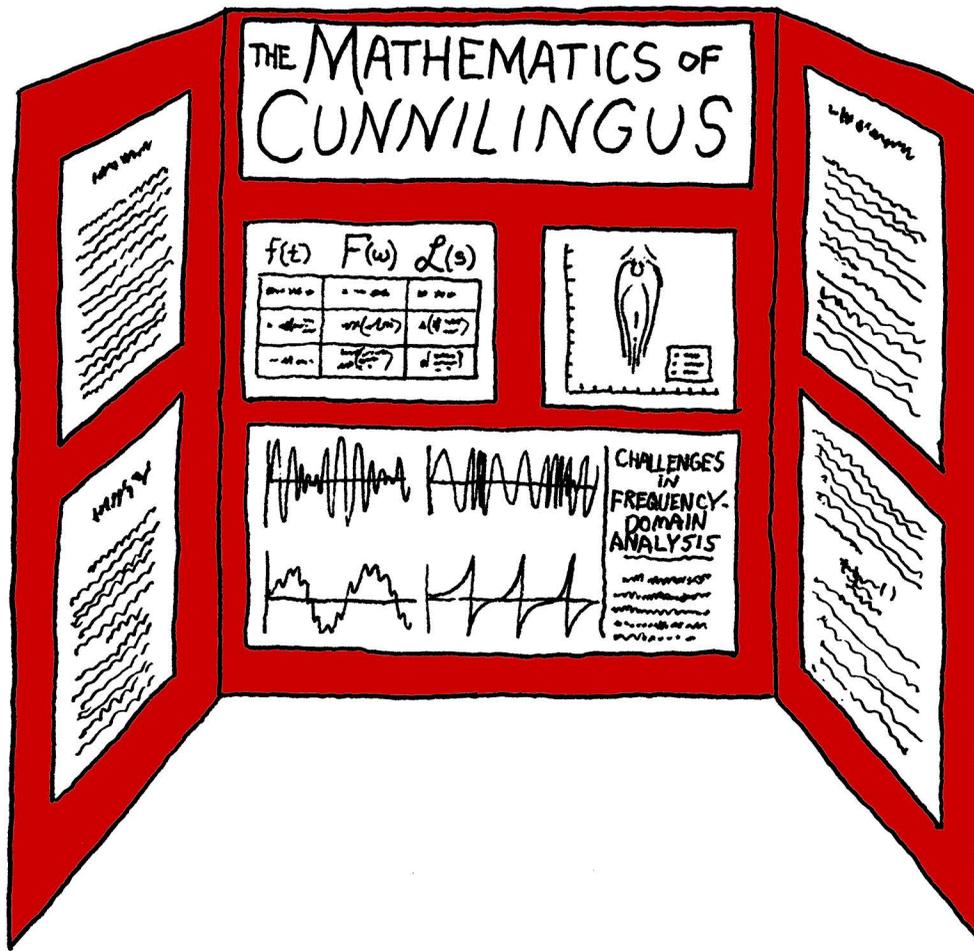
3. Raptors can open doors, but they are slowed by them. Using the floor plan on the next page, plot a route through the building, assuming raptors take 5 minutes to open the first door and halve the time for each subsequent door. Remember, raptors run at 10 m/s and they do not know fear.

YOU THINK THIS IS FUNNY?

I HAVE A WAVE GENERATOR AND  
PETER FRAMPTON'S TALKBOX. LADIES?



ALTHOUGH IT CAUGHT ME BY SURPRISE AT THE TIME,  
LOOKING BACK I UNDERSTAND WHY MY SENIOR  
SCIENCE FAIR PROJECT WENT OVER AS BADLY AS IT DID.



This project actually inspired a two-hour powerpoint presentation that Al Gore gave around the country.

YOU SHOULD BE MORE CAREFUL  
WHAT YOU WRITE. YOU NEVER  
KNOW WHEN A FUTURE EMPLOYER  
MIGHT READ IT.



WHEN DID WE FORGET  
OUR DREAMS?



THE INFINITE POSSIBILITIES EACH DAY HOLDS SHOULD STAGGER THE MIND. THE SHEER NUMBER OF EXPERIENCES I COULD HAVE IS UNCOUNTABLE, BREATHTAKING, AND I'M SITTING HERE REFRESHING MY INBOX. WE LIVE TRAPPED IN LOOPS, RELIVING A FEW DAYS OVER AND OVER, AND WE ENVISION ONLY A HANDFUL OF PATHS LAID OUT AHEAD OF US. WE SEE THE SAME THINGS EACH DAY, WE RESPOND THE SAME WAY, WE THINK THE SAME THOUGHTS, EACH DAY A SLIGHT VARIATION ON THE LAST, EVERY MOMENT SMOOTHLY FOLLOWING THE GENTLE CURVES OF SOCIETAL NORMS. WE ACT LIKE IF WE JUST GET THROUGH TODAY, TOMORROW OUR DREAMS WILL COME BACK TO US.

AND NO, I DON'T HAVE ALL THE ANSWERS. I DON'T KNOW HOW TO JOLT MYSELF INTO SEEING WHAT EACH MOMENT COULD BECOME. BUT I DO KNOW ONE THING: THE SOLUTION DOESN'T INVOLVE WATERING DOWN MY EVERY LITTLE IDEA AND CREATIVE IMPULSE FOR THE SAKE OF SOMEDAY EASING MY FIT INTO A MOLD. IT DOESN'T INVOLVE TEMPERING MY LIFE TO BETTER FIT SOMEONE'S EXPECTATIONS. IT DOESN'T INVOLVE CONSTANTLY HOLDING BACK FOR FEAR OF SHAKING THINGS UP.



THIS IS VERY IMPORTANT, SO I WANT TO  
 SAY IT AS CLEARLY AS I CAN:

FUCK.



THAT.



SHIT.



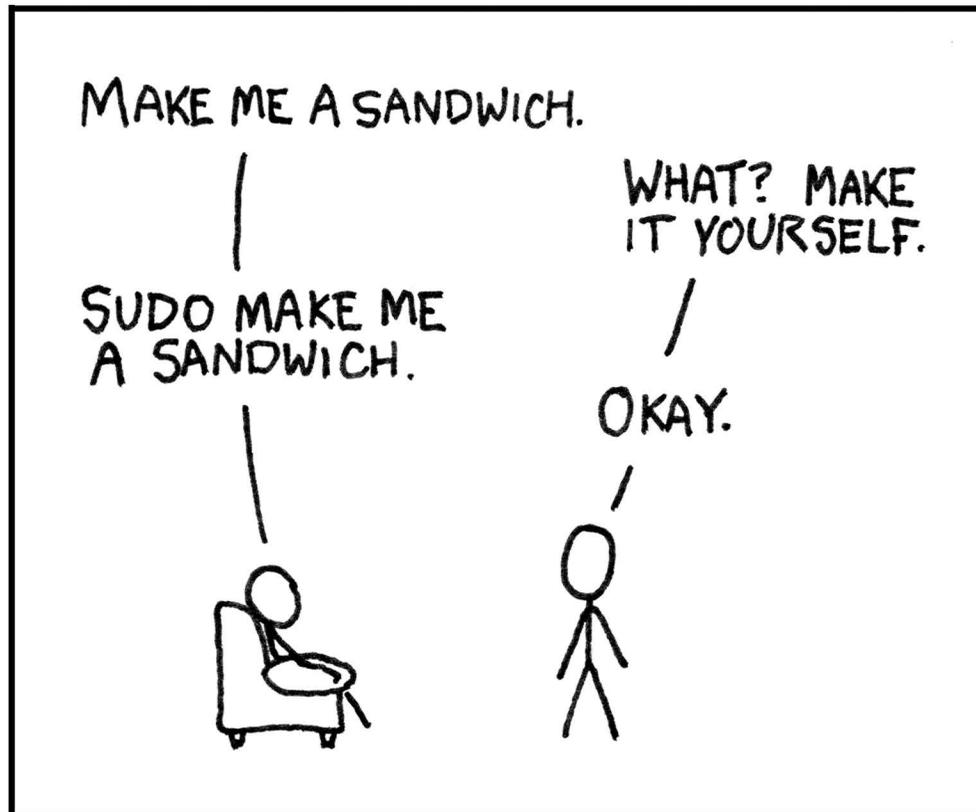
MAN, I SUCK AT THIS GAME.  
CAN YOU GIVE ME  
A FEW POINTERS?

0x4B657932,  
0x6F66383A,  
0x73CD4542.

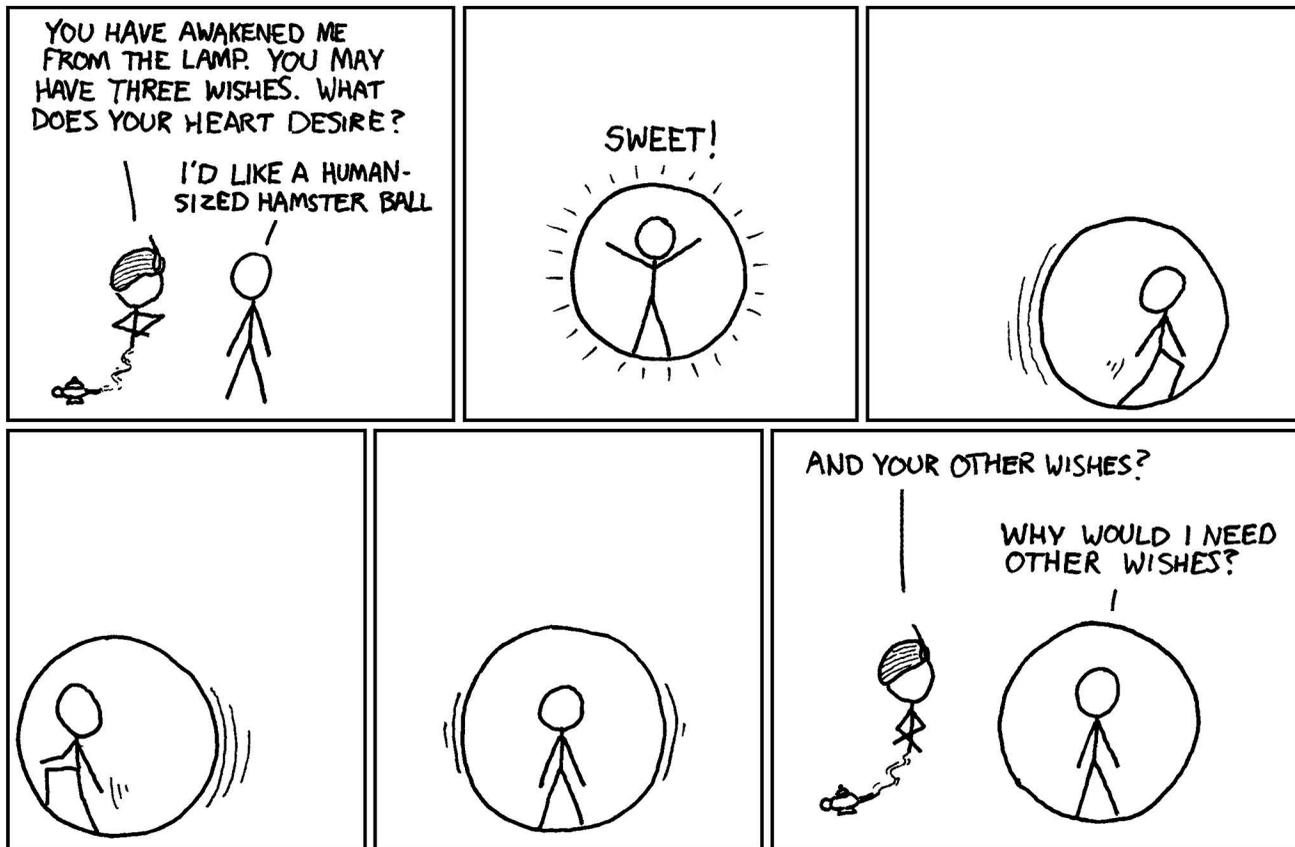
I HATE YOU.



Every computer, at the unreachable memory address, 0x-1, stores a secret. I found it, and it is that all humans ar-- SEGMENTATION FAULT.



Proper User Policy apparently means Simon Says.



Reportedly, double-walled inflatable balls like this exist somewhere. Now to find that place.

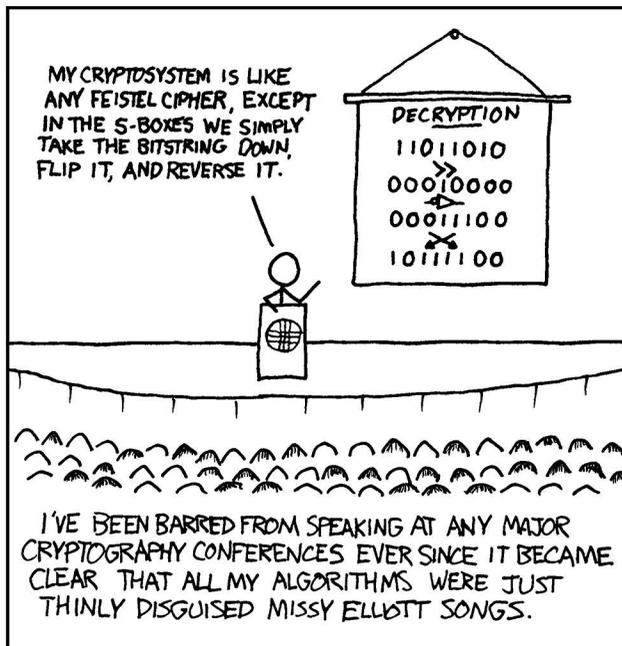


No one show this to Tycho's wife, okay?

I CAN'T DO THIS. I CAN'T PARODY PENNY ARCADE. I'VE GOT NOTHING ON THOSE GUYS. THEY'RE A CLASS ACT, THEY KNOW THEIR AUDIENCE, THEY KNOW EXACTLY WHAT THEY'RE DOING. GABE EXPERIMENTS WITH HIS ART, ALWAYS BOLD AND FRESH WITHOUT TRYING TO PERFORM. TYCHO'S WRITING CONTINUES TO ASTOUND DAY AFTER DAY. I CAN JUST SEE HIM, READING MY UNCULTURED SWILL MASQUERADING AS HIS FLORID PROSE.

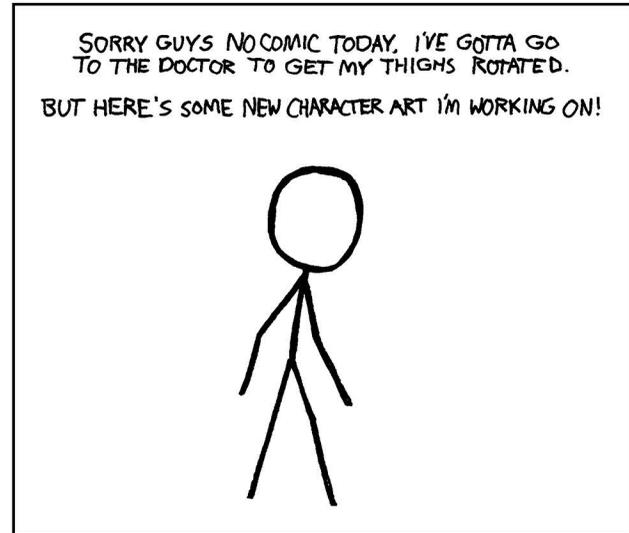
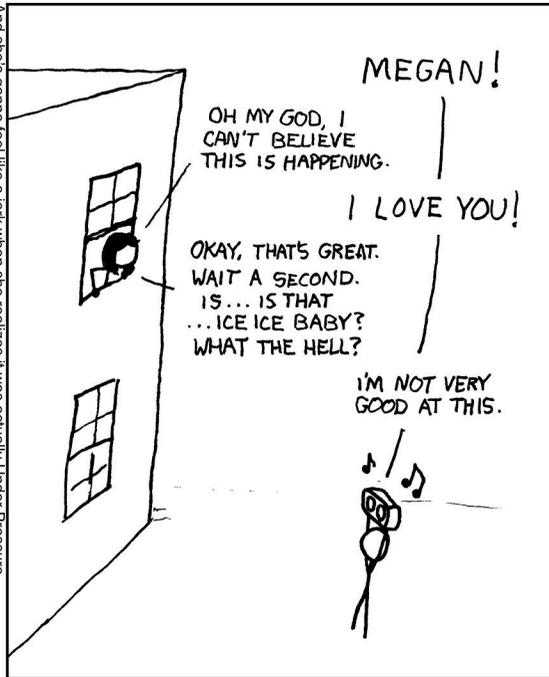
BUT HE'S NOT ANGRY, NO. HE'S SITTING AT HIS DESK SMILING THAT CONDESCENDING HALF-SMILE, THE CORNER OF HIS MOUTH BELYING THE SELF-ASSURANCE OF A WRITER WHO NEVER MISPLACES A WORD. HIS FIRM HANDS REST EASILY ON THE KEYBOARD, HIS RIGHT THUMB CARESSING THE SPACE BAR GENTLY AS I ENTER THE ROOM. HE KNOWS I'M THERE WITHOUT TURNING AROUND, AND I'M TOO NERVOUS TO SPEAK. BUT I DON'T HAVE TO; HE UNDERSTANDS. I CAN SEE IT IN THE WAY HIS EYES PLAY OVER ME, READING MY FEARS AND DOUBTS IN A GLANCE AND WASHING THEM AWAY WITH A KNOWING SMILE. THEN HE'S ON HIS FEET, HE'S IN FRONT OF ME, AND I DON'T FEEL THE ELECTRIC JOLT I EXPECTED AS OUR HANDS MEET. IT'S JUST WARM, WARM AND RIGHT. AS I SINK INTO HIS EYES, I FEEL A HAND ON MY SHOULDER, AND I SEE TYCHO SMILE AT SOMEONE BEHIND ME. GABE IS STANDING THERE, GRINNING THAT MISCHIEVOUS GRIN, AND TWIRLING HIS BELOVED CARDBOARD TUBE BETWEEN HIS FINGERS.

THE NIGHT HAS JUST BEGUN.



If you've got a big keyspace, let me search it.

And she's gonna feel like a jerk when she realizes it was actually Under Pressure.

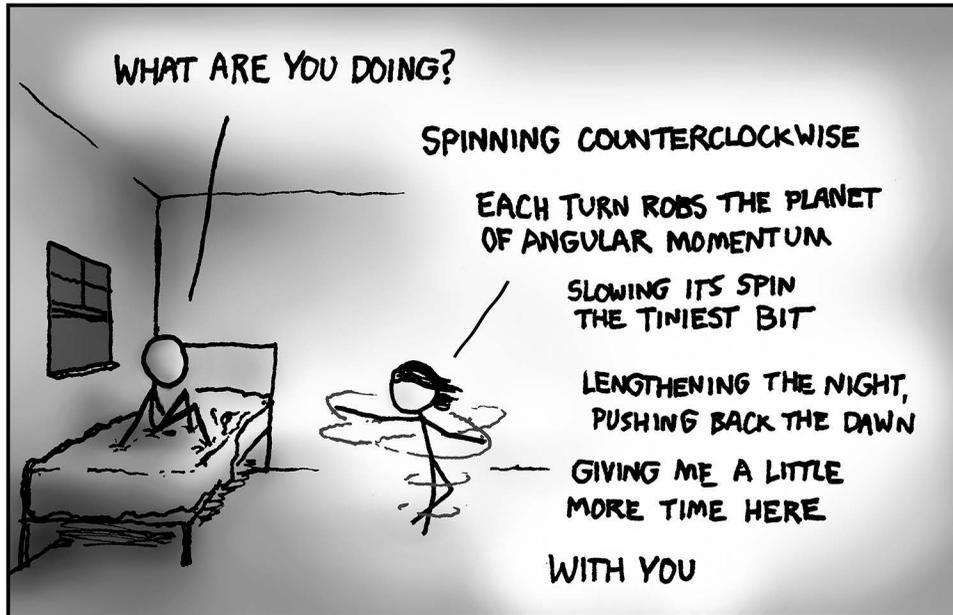


Maybe I should let up on Megatokyo a little?



As far as treachery-as-driving-music goes, Katamari music is matched only by Guitar Hero music.

$$t_{\text{gained}} = \frac{I_{\text{girl}}}{I_{\text{earth}}} n \times \text{day} \approx \frac{60 \text{ kg} \times (30 \text{ cm})^2}{M_{\text{earth}} r_{\text{earth}}^2} n \times 1 \text{ day} \approx_{(n=1)} 10^{-35} \text{ seconds/turn}$$



With reasonable assumptions about latitude and body shape, how much time might she gain them? Note: whatever the answer, sunrise always comes too soon. (Also, is it worth it if she throws up?)

$$\begin{bmatrix} \cos 90^\circ & \sin 90^\circ \\ -\sin 90^\circ & \cos 90^\circ \end{bmatrix} \begin{bmatrix} a_1 \\ a_2 \end{bmatrix} = \begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}$$

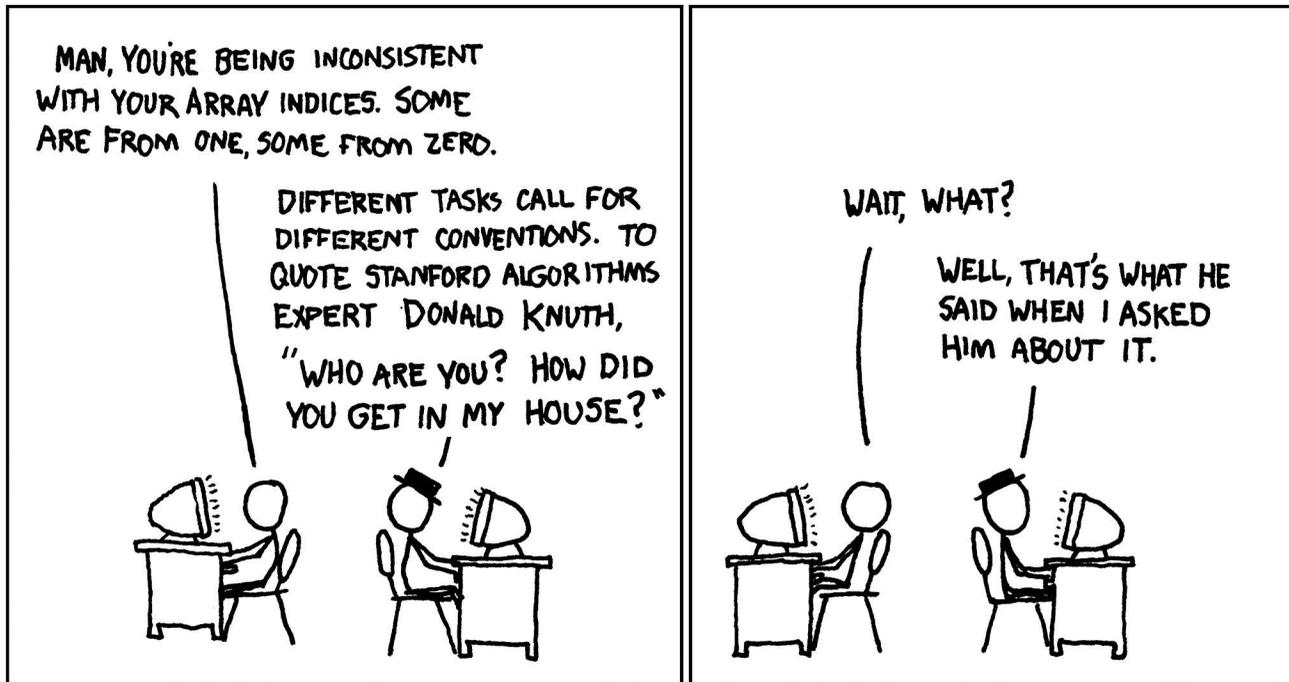
In fact, draw all your rotational matrices sideways. Your professors will love it! And then they'll go home and shrink.

I CAN'T COUNT HOW MANY PEOPLE HAVE WRITTEN IN TO TELL ME THE DIRECTION OF ROTATION IS WRONG HERE. THEY SHOULD CHECK THE SIGNS MORE CAREFULLY.

↑  
("SHRINK" IN THE TITLE-TEXT, HOWEVER, WAS A TYPO. IT WAS SUPPOSED TO BE "DRINK," BUT I'VE LEFT IT BECAUSE OF  $\begin{pmatrix} 1 \\ i \end{pmatrix} \begin{bmatrix} a_1 \\ a_2 \end{bmatrix}$ )

"SHOULD ARRAY INDICES START AT 0 OR 1? MY COMPROMISE OF 0.5 WAS REJECTED WITHOUT, I THOUGHT, PROPER CONSIDERATION." - STAN KELLY-BOOTLE

"WHAT ARE YOU DOING WITH THAT THING? EWW, IT'S STILL ALIVE!" - PAUL GRAHAM



His books were kind of intimidating; rappelling down through his skylight seemed like the best option.

"I'M CALLING THE POLICE ONCE I GET MY CELL PHONE BACK FROM YOUR SQUID." - BRUCE SCHNEIER

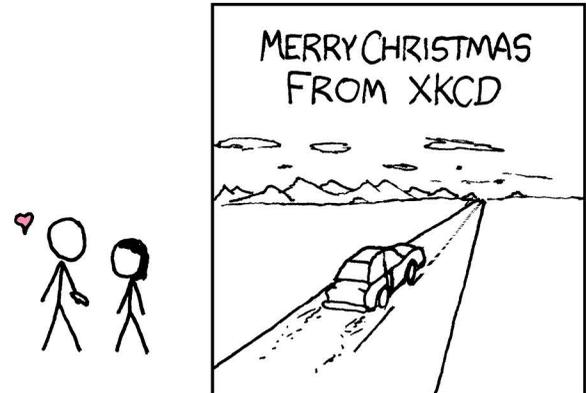
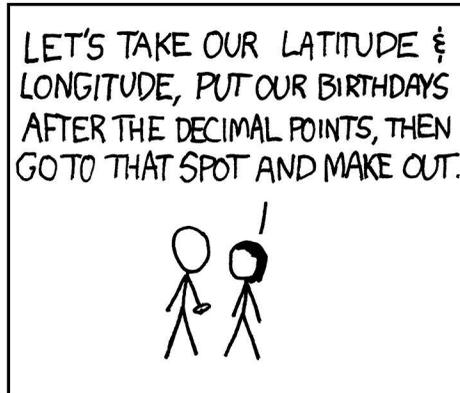
"SORRY, I THOUGHT YOU WERE MICROSOFT." - RMS



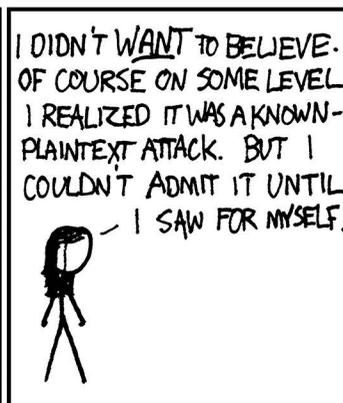
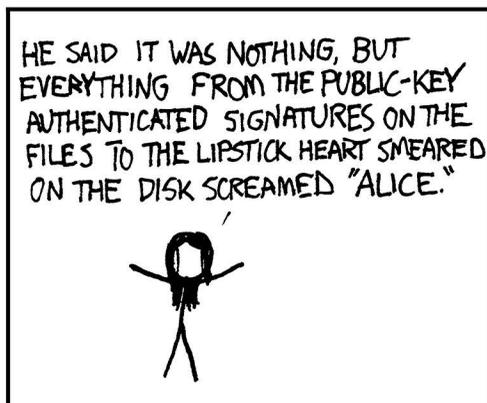
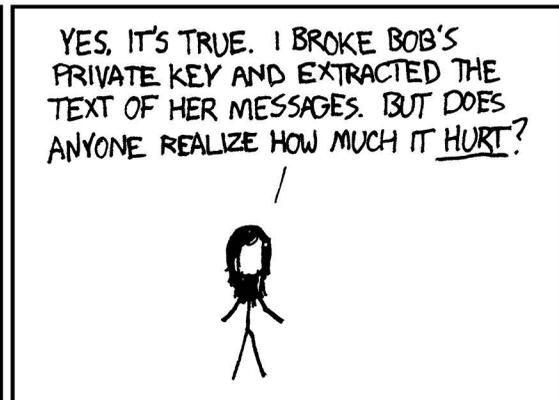
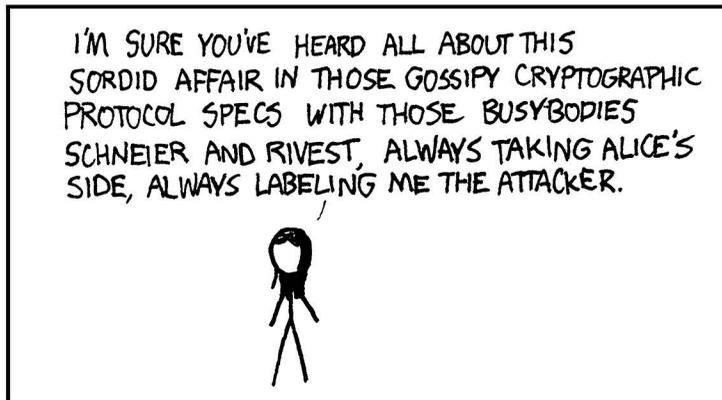
I'm not very good at meeting people.

$$f_{\text{them}} = f_{\text{you}} \pm \frac{1}{\text{cycle time}}$$

WE TRIED THIS AND ENDED UP ON THE GROUNDS OF THE ONLY PARTICLE ACCELERATOR FOR A HUNDRED MILES.

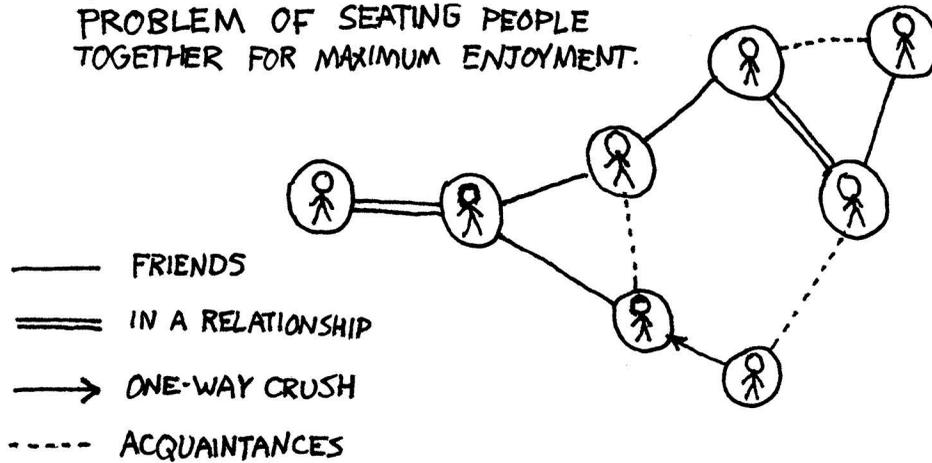


If it's over water, and you can't get a boat or revise the rules to preserve the makeout, there is no helping you.



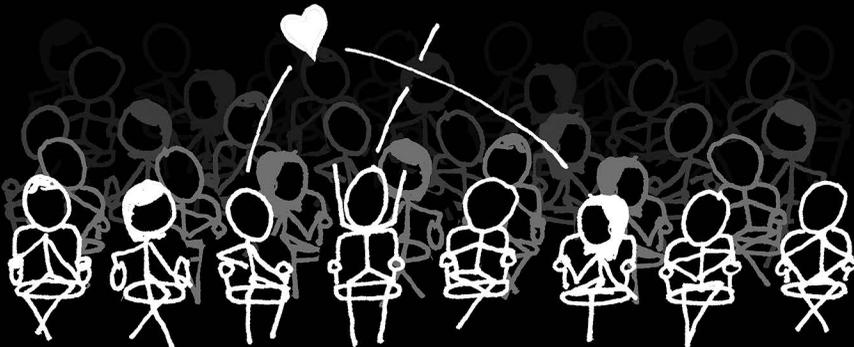
Yet one more reason I'm barred from speaking at crypto conferences.

AT THE MOVIES, I GET FRUSTRATED  
WHEN WE FILE INTO OUR ROW  
HAPHAZARDLY, IGNORING THE  
COMPUTATIONALLY DIFFICULT  
PROBLEM OF SEATING PEOPLE  
TOGETHER FOR MAXIMUM ENJOYMENT.



It's like the traveling salesman problem, but the endpoints are different and you can't ask your friends for help because they're sitting three seats down.

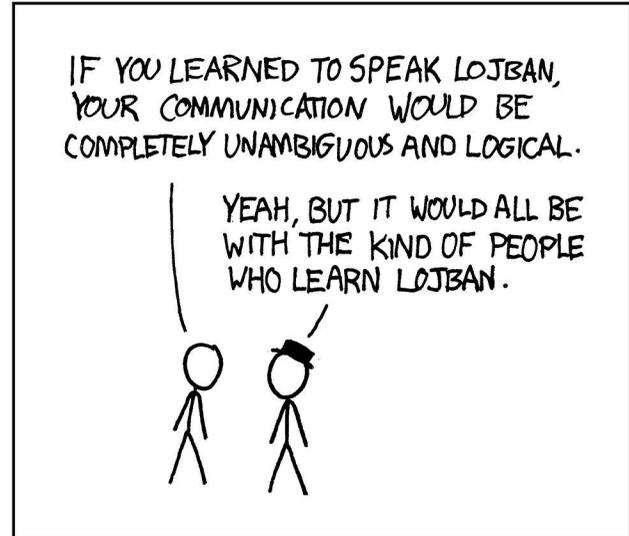
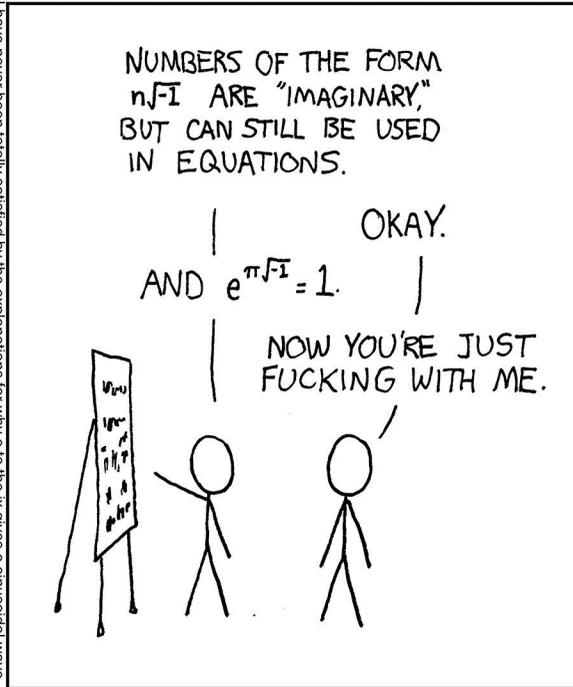
GUYS! THIS IS NOT  
SOCIAALLY OPTIMAL!



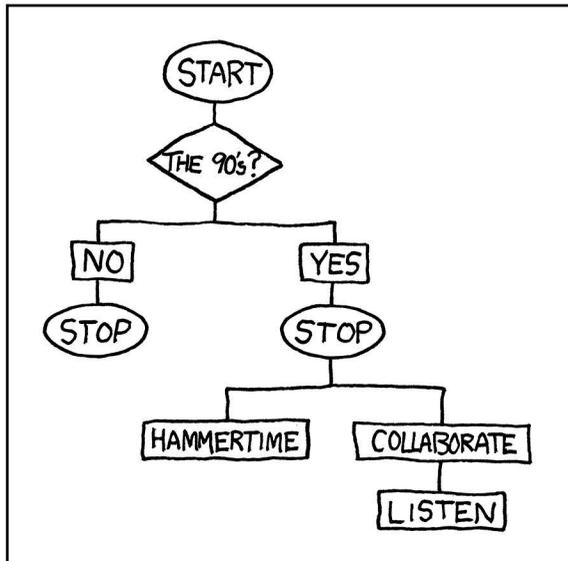
DRAWING THIS COMIC WAS MY PASSIVE-AGGRESSIVE  
WAY OF ASKING MY FRIENDS TO LET ME PLAN SEATING.

I INITIALLY GOT THE SIGN WRONG HERE,  
AND GOT 40 EMAILS IN 3 HOURS.

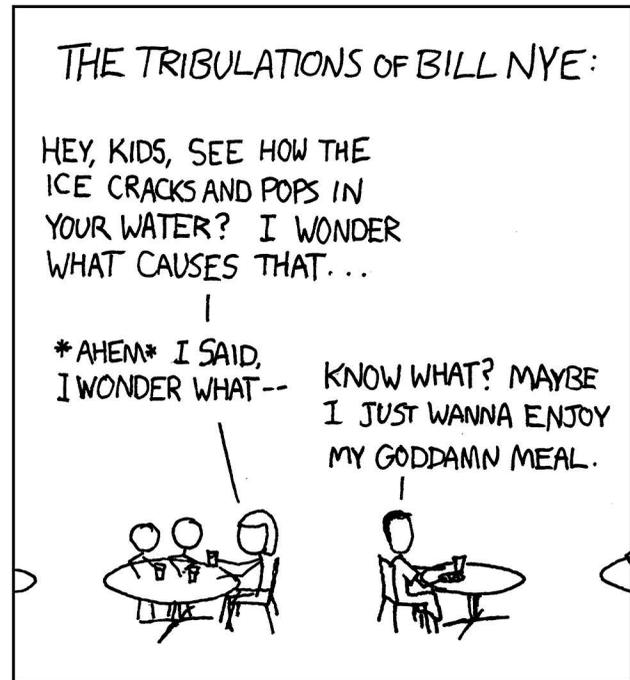
have never been totally satisfied by the explanations for why  $e$  to the ix gives a sinusoidal wave.



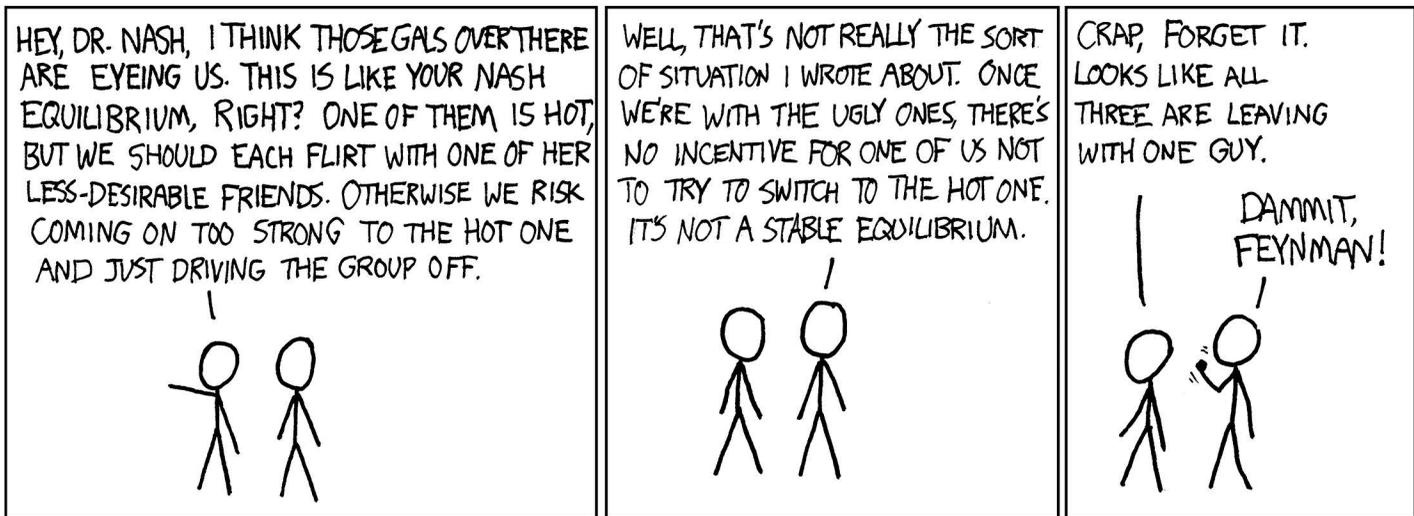
zo'o ta jiffa .i .e'o xu do pendo mi



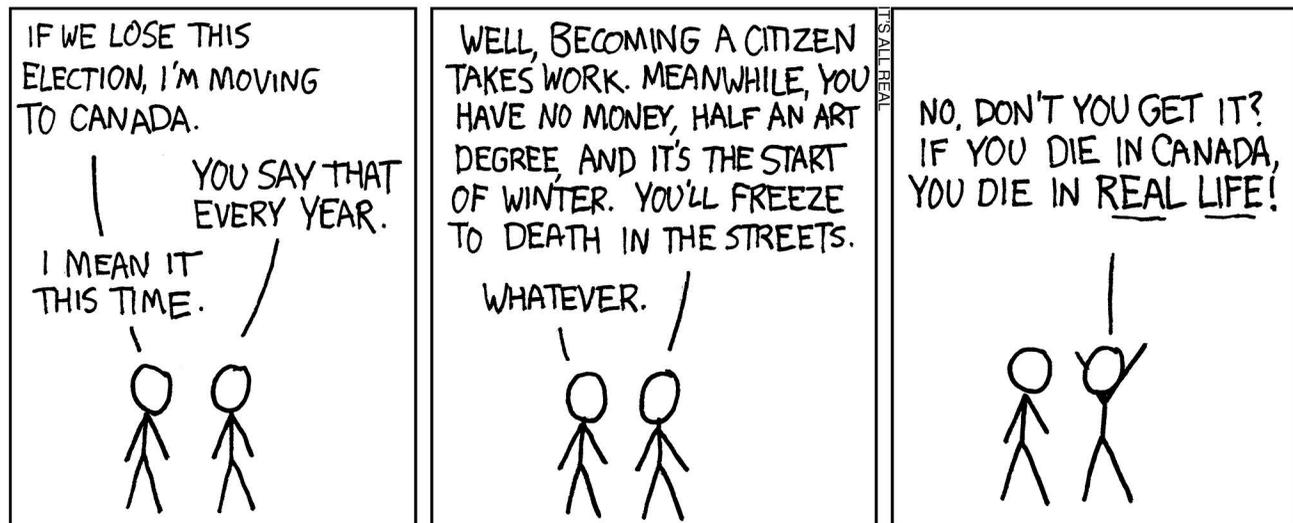
Freestyle rapping is basically applied Markov chains.



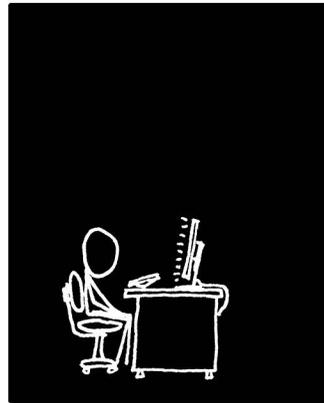
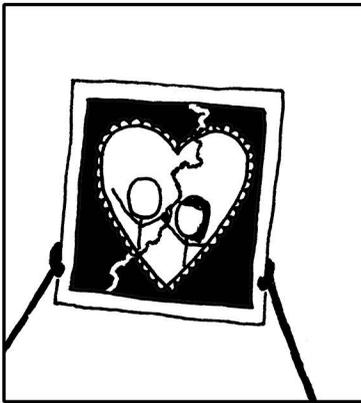
You could at least not wear the lab coat everywhere, dude.



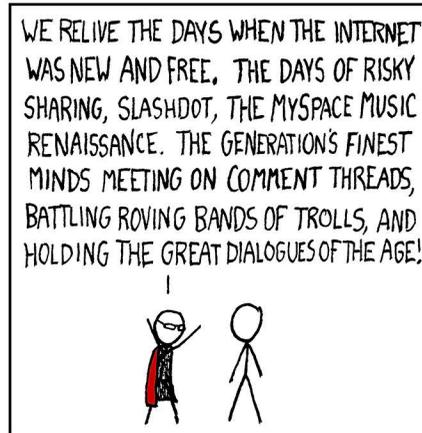
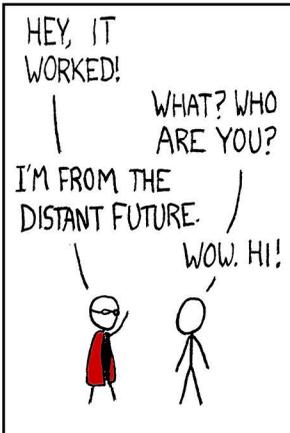
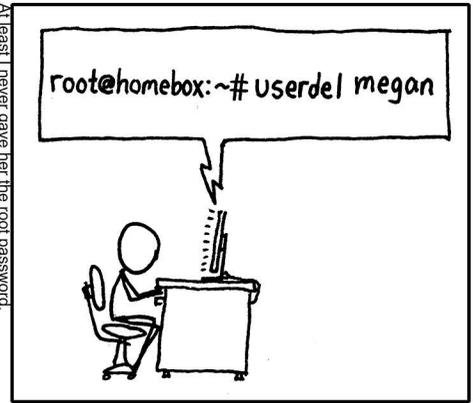
Maybe someday science will get over its giant collective crush on Richard Feynman. But I doubt it!



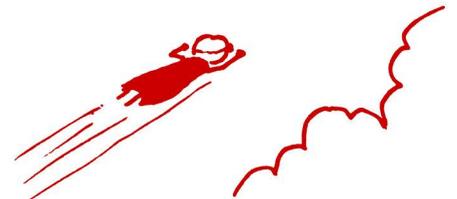
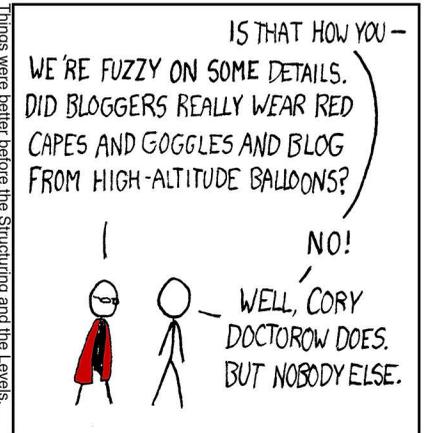
THIS WAS A HIT WITH CANADIANS, BUT I THINK THEY JUST LIKE ANYTHING THAT MENTIONS THEM AT ALL.

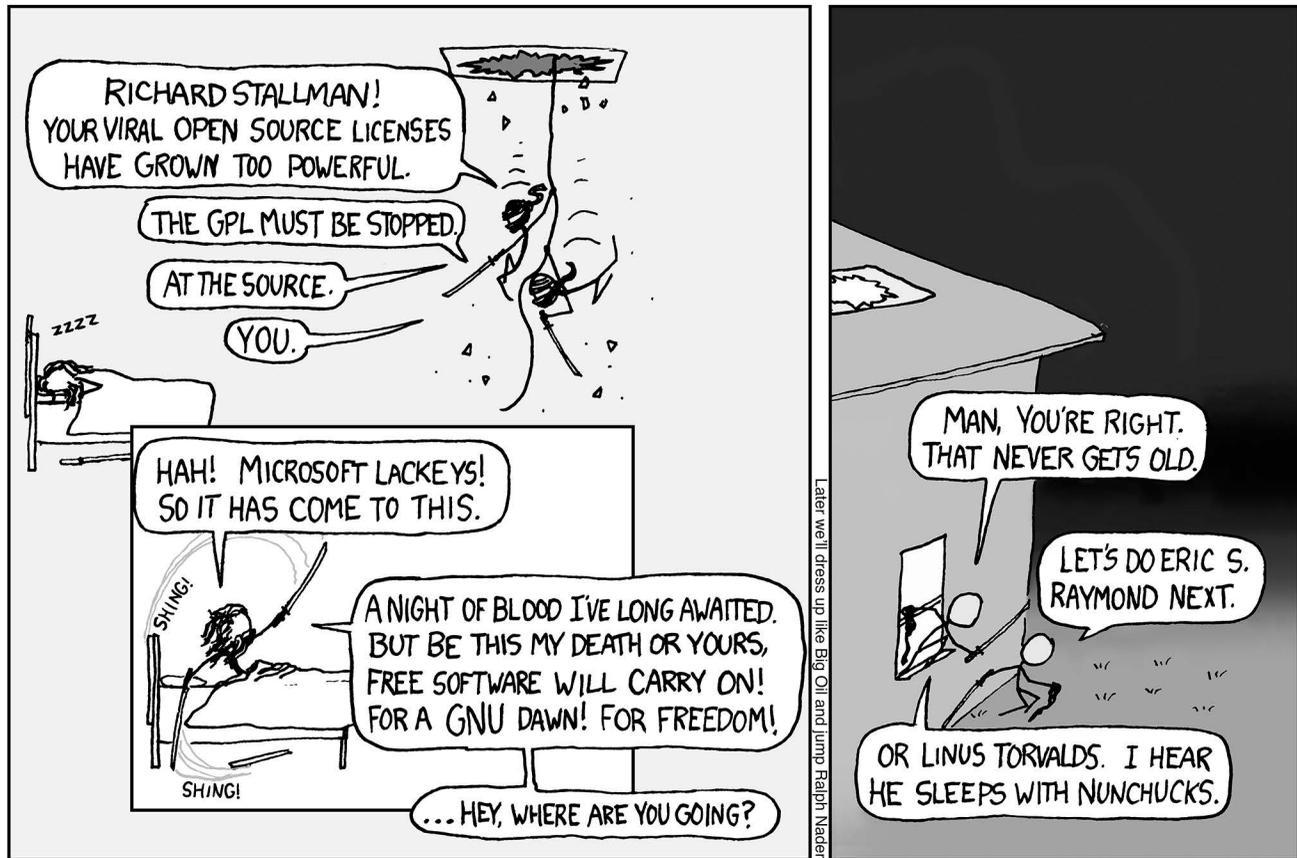


At least I never gave her the root password.



Things were better before the Structuring and the Levels.





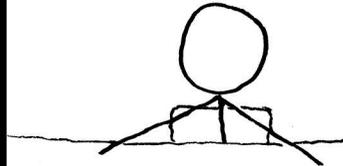
ORIGINALLY, I HAD THE PHRASES "OPEN SOURCE"  
AND "FREE SOFTWARE" REVERSED HERE, BUT A FLOOD OF 1:00 AM  
LETTERS TOLD ME STALLMAN NOTORIOUSLY HATES THE TERM  
"OPEN SOURCE" AND WOULD NEVER USE IT. THE COMIC TITLE WAS  
"OPEN SOURCE" AND I COULDN'T CHANGE THAT, SO I JUST  
SWITCHED WHO SAID WHAT AND WENT TO SLEEP.  
ONLY ONE PERSON WROTE IN POST-CHANGE TO COMPLAIN  
ABOUT "OPEN SOURCE" STILL BEING USED IN THE TITLE -  
-STALLMAN HIMSELF

AND THEREFORE, BASED ON THE EXISTENCE OF A HAMILTONIAN PATH, WE CAN PROVE THAT THE ROUTING ALGORITHM GIVES THE OPTIMAL RESULT IN ALL CASES.

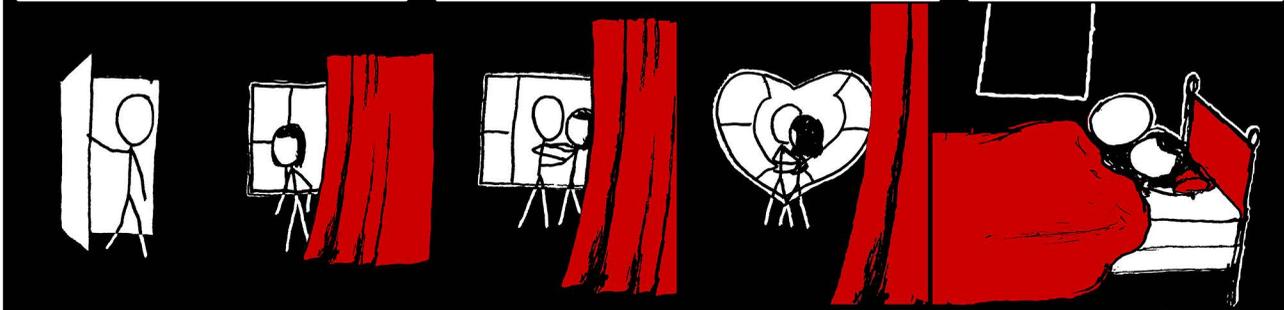
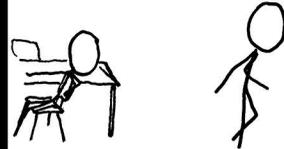


WHAT? WHAT IS IT?

A SUDDEN RUSH OF PERSPECTIVE. WHAT AM I DOING HERE? LIFE IS SO MUCH BIGGER THAN THIS!



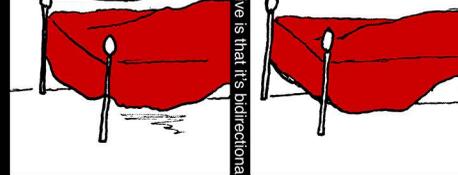
I HAVE TO GO.



WAIT A MOMENT.

WHAT IS IT?

The problem with perspective is that it's bidirectional.

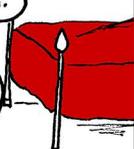


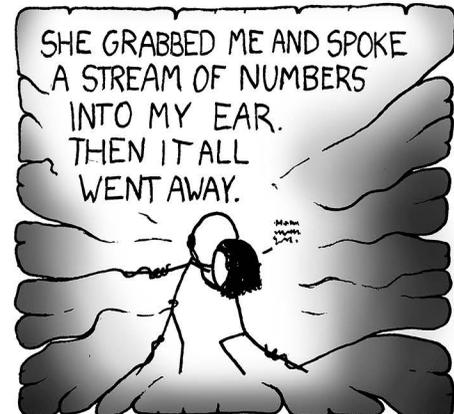
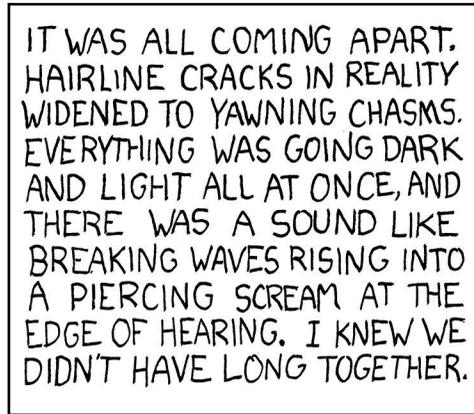
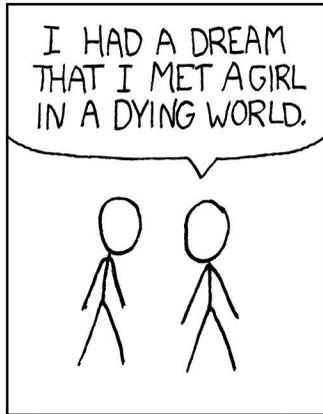
HIS PROOF ONLY HOLDS IF THERE'S A HAMILTONIAN CYCLE AS WELL AS A PATH!

... EXCUSE ME?

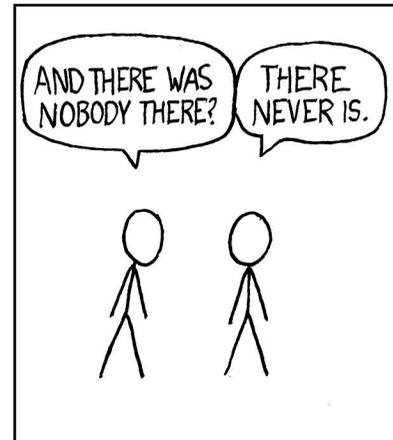
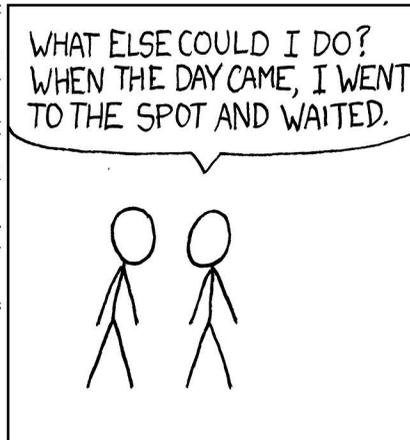
PAPER, I NEED SOME PAPER.

HEY, DO YOU MIND IF I JOT DOWN SOME NOTES ON YOUR CHEST?



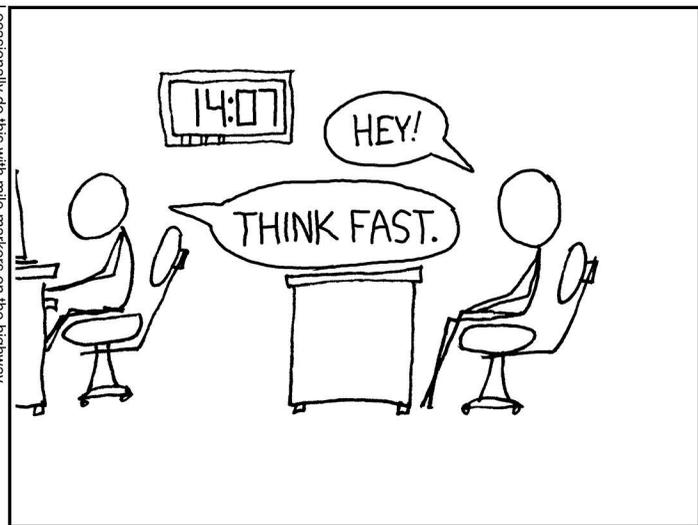
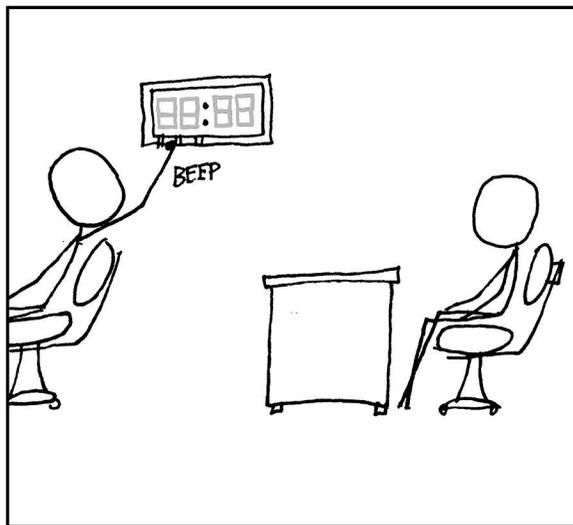
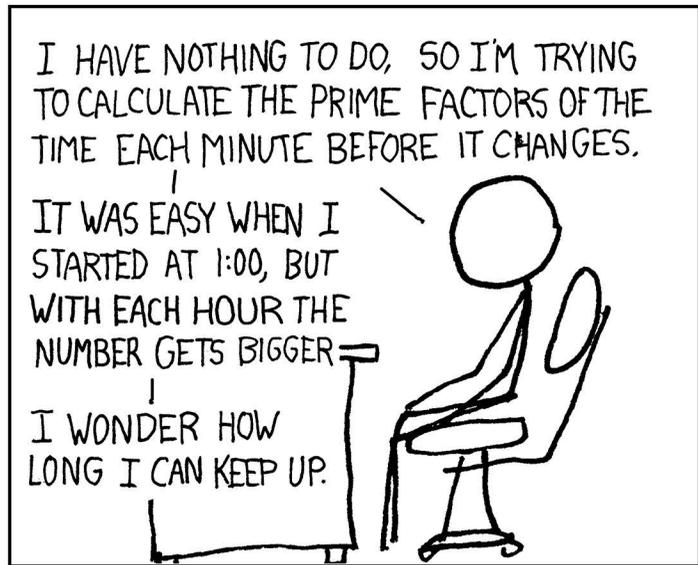
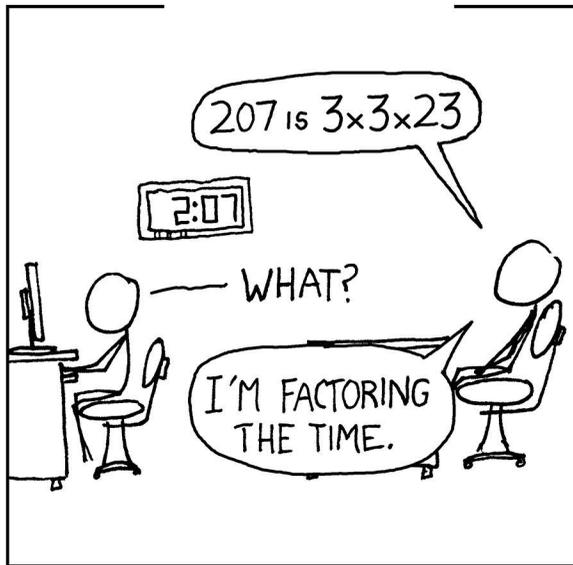


No matter how elaborately you fool yourself.



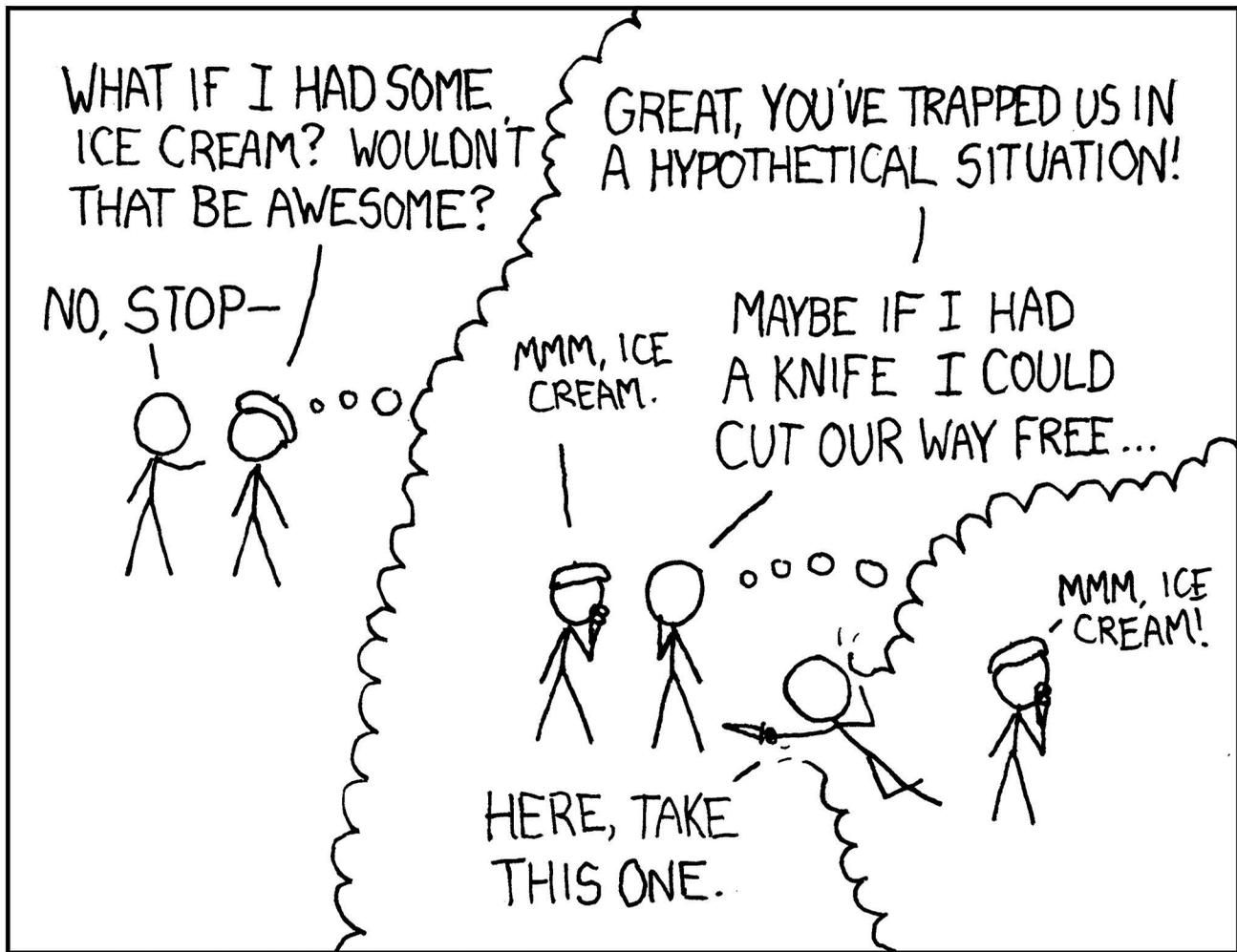
772A3A35 DEF88CA7  
03F8D76B 3FA0CB8C

0BDFD186 20B05684 934721F8 F64762FD  
2756B2D0 A9F00A1B CFF1603E DB05426C

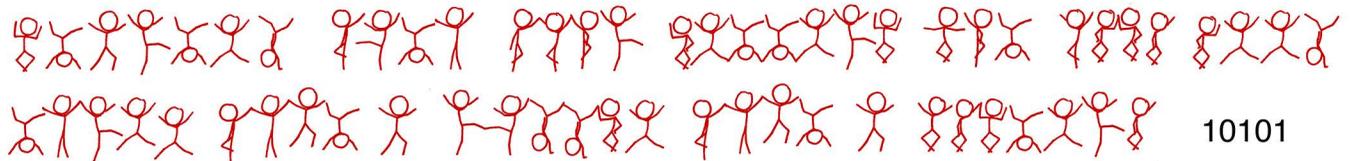


occasionally do this with mile markers on the highway.

10110

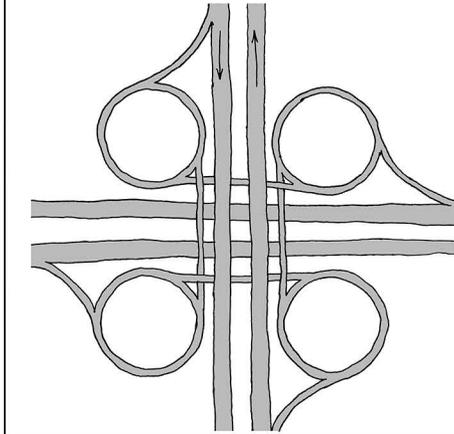


What if someone broke out of a hypothetical situation in your room right now?

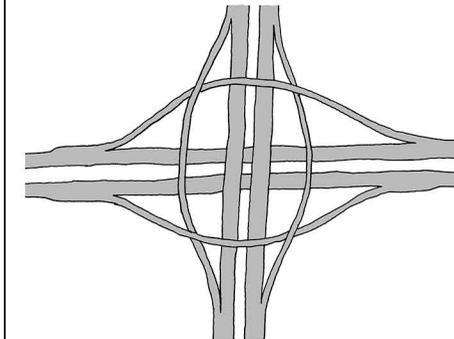


## HIGHWAY ENGINEER PRANKS:

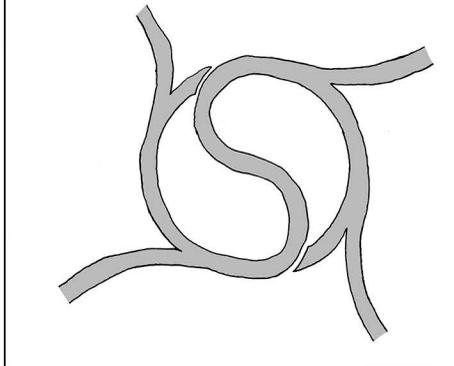
### THE INESCAPABLE CLOVERLEAF:



### THE ZERO-CHOICE INTERCHANGE:



### THE ROTARY SUPERCOLLIDER:



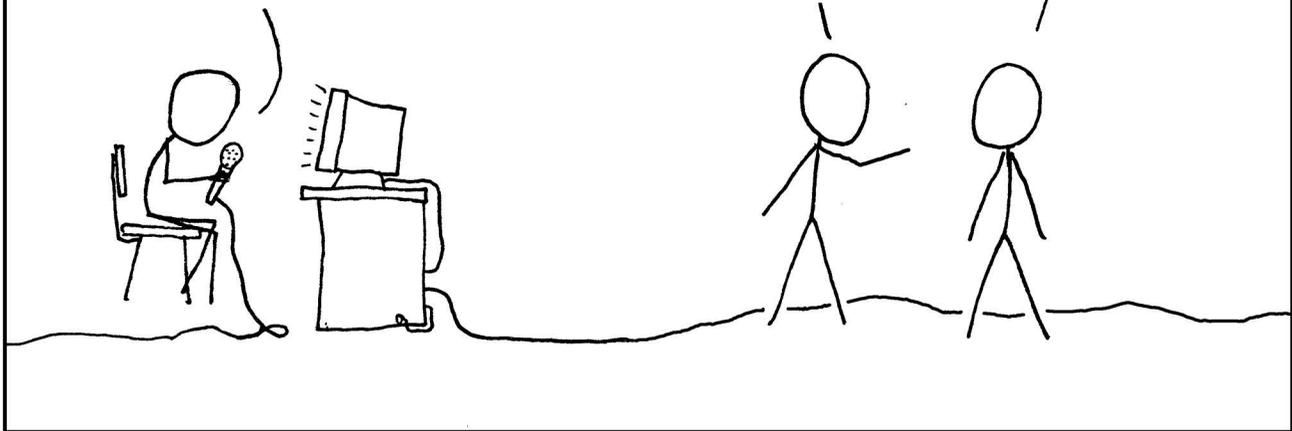
Prank #11: Boston

DO'NEH'LINI, DO'NEH'LINI,  
A'LA'IH, A'LA'IH, A'LA'IH,  
A'LA'IH, DO'NEH'LINI,  
DO'NEH'LINI, DO'NEH'LINI,  
DO'NEH'LINI, A'LA'IH,  
A'LA'IH, DO'NEH'LINI,  
DO'NEH'LINI, A'LA'IH,  
A'LA'IH...

FOR ADDED SECURITY, AFTER  
WE ENCRYPT THE DATA STREAM,  
WE SEND IT THROUGH OUR  
NAVAJO CODE TALKER.

... IS HE JUST USING  
NAVAJO WORDS FOR  
"ZERO" AND "ONE"?

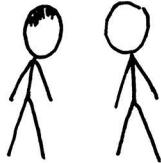
WHOA, HEY, KEEP  
YOUR VOICE DOWN!



As far as I can tell, Navajo doesn't have a common word for 'zero'. do-neh- lini means 'neutral'.

THE OFFICIAL STORY OF  
9-11 IS FULL OF HOLES.  
TAKE THE —

PLEASE, STOP, BECAUSE  
SEEING THIS HAPPEN  
TO YOU BREAKS MY  
HEART.



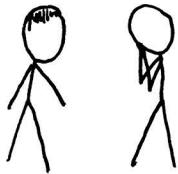
There are a lot of graduate-educated young-earth creationists.

CONSPIRACY THEORIES REPRESENT A KNOWN GLITCH IN HUMAN REASONING. THE THEORIES ARE OF COURSE OCCASIONALLY TRUE, BUT THEIR TRUTH IS COMPLETELY UNCORRELATED WITH THE BELIEVER'S CERTAINTY. FOR SOME REASON, SOMETIMES WHEN PEOPLE THINK THEY'VE UNCOVERED A LIE, THEY RAISE CONFIRMATION BIAS TO AN ART FORM. THEY CUT CONTEXT AWAY FROM FACTS AND ARGUMENTS AND ASSEMBLE THEM INTO REASSURING LITANIES. AND OVER AND OVER I'VE ARGUED HELPLESSLY WITH SMART PEOPLE CONSUMED BY THEORIES THEY WERE SURE WERE IRREFUTABLE, THEORIES THAT IN THE END PROVED COMPLETE FICTIONS.



YOUNG-EARTH CREATIONISTS, THE MOON  
LANDING PEOPLE, THE PERPETUAL MOTION  
SUBCULTURE — CAN'T YOU SEE YOU'RE  
FALLING INTO THE SAME PATTERN?

YOU DON'T  
SERIOUSLY  
BELIEVE WE  
LANDED ON THE  
MOON, DO YOU?



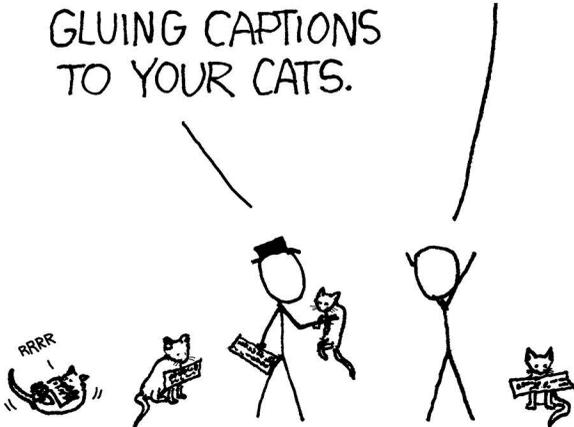
DEAR GOD, /  
YES, MY CHILD?  
I WOULD LIKE TO  
FILE A BUG REPORT.



OH, HI; I'M HERE  
FROM THE INTERNET.

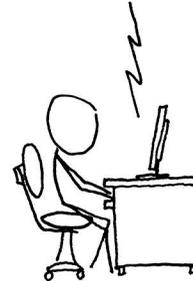
WHAT ARE YOU DOING!?

GLUING CAPTIONS  
TO YOUR CATS.

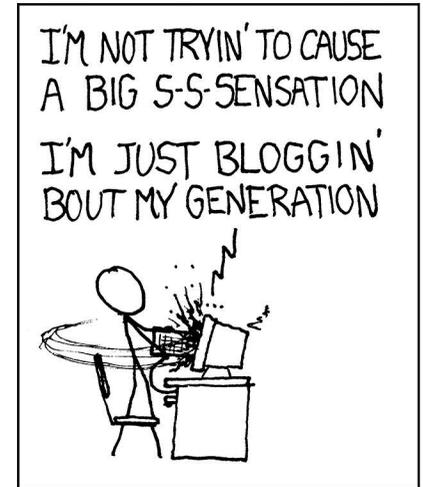
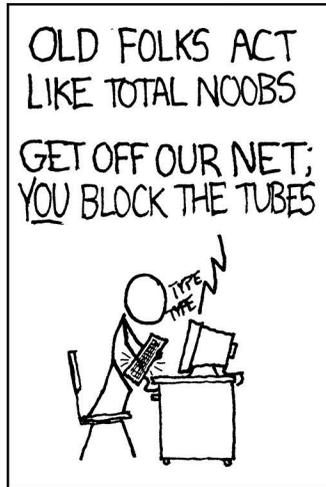
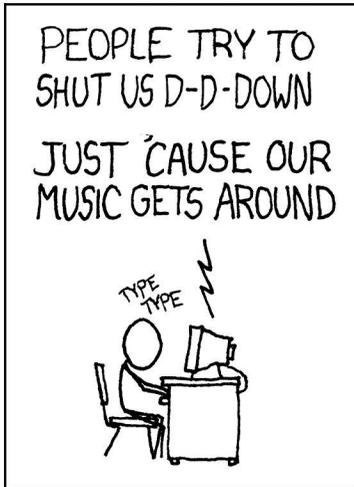


Hey, at least I ran out of staples.

```
<rob> hi
<emily> hey you
<rob> last night was nice
<emily> the best i've had
<rob> yeah it was AMAZING
<emily> ok, i have to ask
<emily> is this for real?
<emily> or is it just sex
<rob> definitely just sex
<emily> holy shit
<emily> are you serious?
<emily> you don't know how much that made
        my stomach hurt
<emily> i want to cry
<rob> i'm sorry
<rob> i wanted to type 'i love you'
<rob> but our line lengths were syncing up
<emily> ...
<rob> and it would have broken the pattern
* emily has disconnected
```

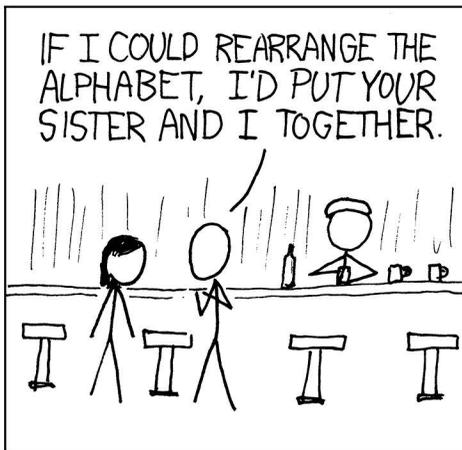


I wish I knew how to quit this so I wouldn't have to quit you.



Trivia: Roger Daltry originally wrote 'Don't try an' Digg what we all say' but erased the second 'g' when he moved to reddit.

**I'M NOT SURE HOW HE'S TYPING THAT LAST LINE.**



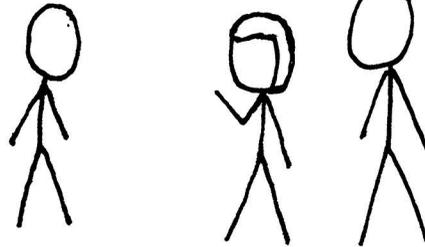
That shirt looks good on you, but it would look even better stuffed into the neck of a vodka bottle and flung burning through our office building's window. Let's fucking do it and never look back.

WHEN MEETING A GIRLFRIEND'S FAMILY,  
I HAVE TO SUPPRESS THE WEIRDEST THOUGHTS.

HI!

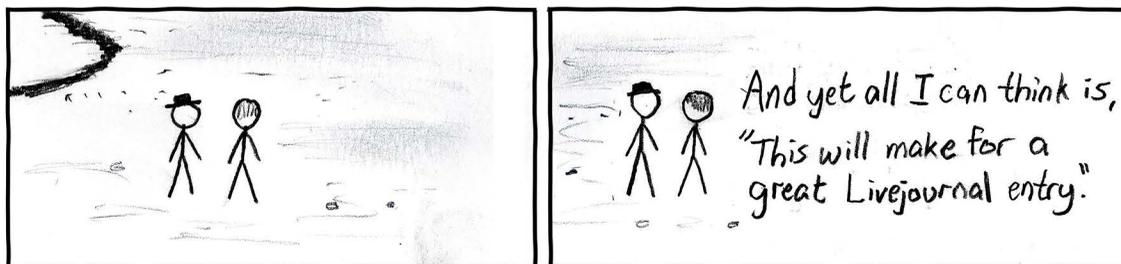
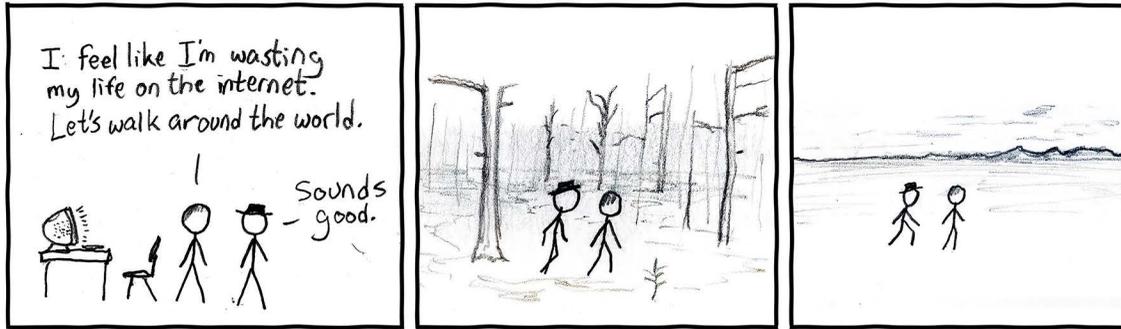
HI! IT'S SO NICE TO  
FINALLY MEET YOU!

I HAVE LICKED YOUR  
DAUGHTER'S NIPPLES.

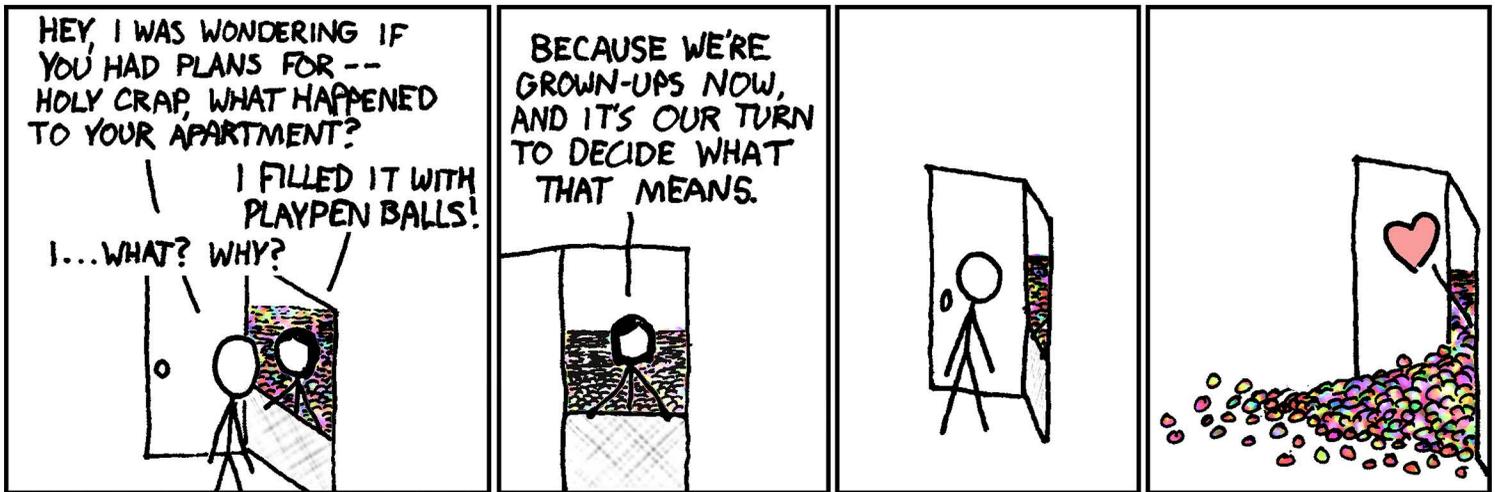


And now I might never get to again.

*IF I THOUGHT IT WAS AWKWARD  
BEFORE I MADE A COMIC ABOUT IT...*



I used to do this all the time.



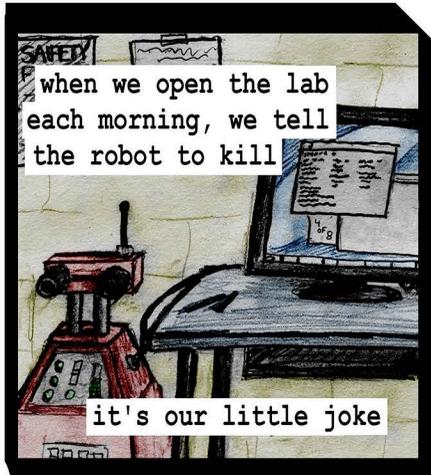
I've looked into this, and I can't figure out a way to do it cheaply. And I guess it wouldn't be sanitary.



Why can't you have normal existential angst like all the other boys?

UATAQANUUNG QSICHINGNKUCHAANG CHSICHINGSICHINGNG  
SICHINGULUUNGUUNG CHAANGATAQANCHATAQANNG

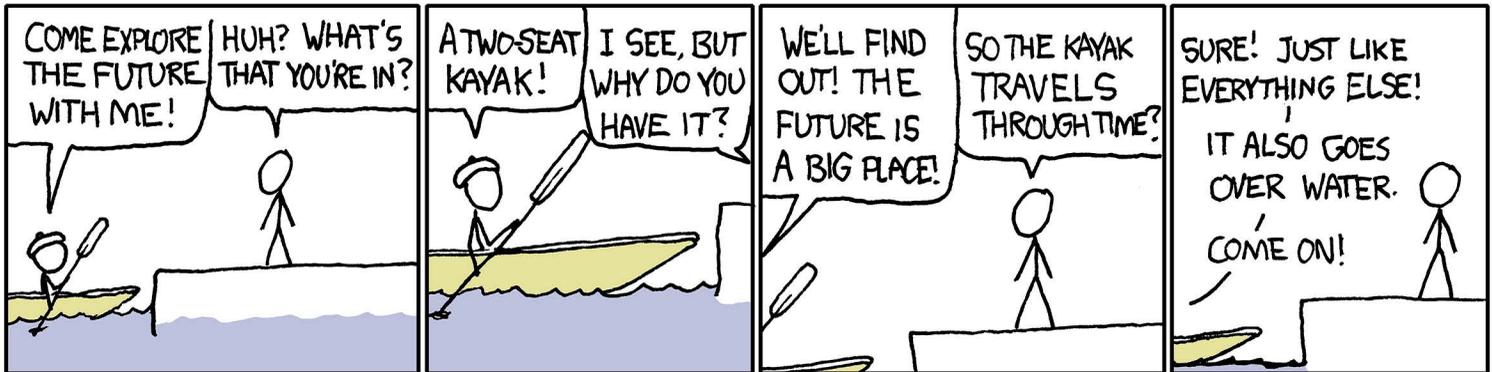
x k c d



r munroe

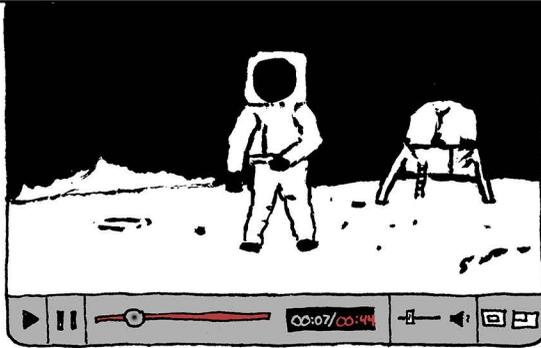


The robot is pregnant. It isn't mine.



Man, there's future "everywhere".

THE INTERNET HAS ALWAYS HAD LOUD DUMB PEOPLE,  
BUT I'VE NEVER SEEN ANYTHING QUITE AS BAD AS  
THE PEOPLE WHO COMMENT ON YOUTUBE VIDEOS.



### COMMENTS & RESPONSES

**ROCKKIR** (48 MINUTES AGO)

THIS IS SO OBVIOUSLY FAKED ITS  
UNBELIEVABLE, WHY R PEOPLE SO  
GULLIBLE???

(REPLY)(MARK AS SPAM)

**BIGMIKE133** (35 MINUTES AGO)

I'VE SEEN THE SPACE SHUTTLE ASS HOLE  
IT DEFINITELY LANDED ON THE MOON  
DO SOME RESEARCH...

(REPLY)(MARK AS SPAM)

**GUNPISTOLMAN** (22 MINUTES AGO)

IF IT WAS REAL WHY IS THEIR GRAVITY?  
AMERICANS R FUCKEN SHEEP

(REPLY)(MARK AS SPAM)

**CRACKMONKEY74** (17 MINUTES AGO)

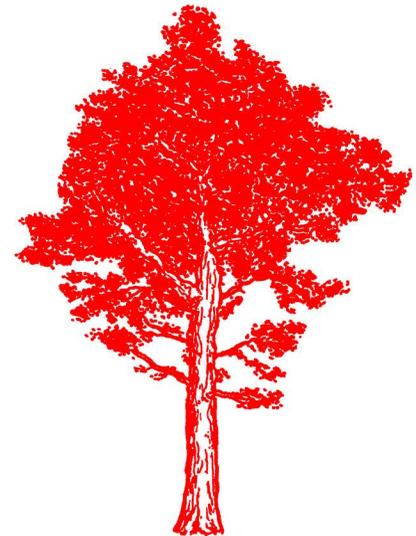
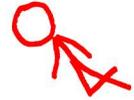
U DONT THINK WE WENT TO THE MOON  
WHY NOT TELL LOUIS ARMSTRONG TO  
HIS FACE

(REPLY)(MARK AS SPAM)

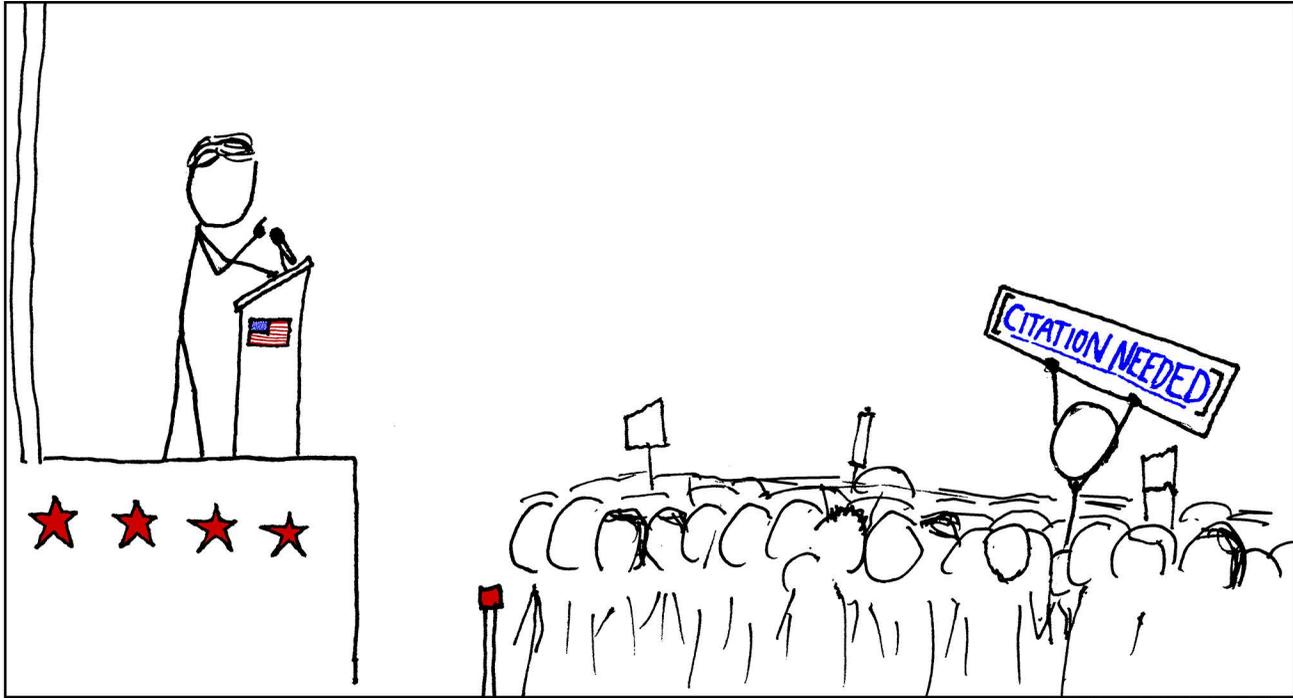
**SIMPLEPLAN2009** (5 MINUTES AGO)

IT WAS A SOUNDSTAGE ON MARS

(REPLY)(MARK AS SPAM)



I pray GunPistolMan never learns the word 'sheepie'.



SEMI-PROTECT THE CONSTITUTION!



To:

GJNHIYTOTNNNBSFOEVYYVT  
NAQGYUAEIEAIAEURFYV  
GULGBIREOUKEGEAEPPFQ  
VQTLEDVYSRNVNJULRNAQTVZOY  
RVETOHRHEWSWHAGURJNO  
RNYYZVZFDSEFYIEIOPELJR  
ERGUROBEBRLGNVNLSDKETEBI

Every day a new city, a new IHOP. And yet every night the dreams get worse. I ply the highways, a nervous eye on the rear-view mirror, the back seat piled with stolen menus. Their doors are opened 24 hours, but forever closed to my soul. This is what my life has become. This is my hell.

INTERNATIONAL

# HOUSE OF PANCAKES



Strawberry Banana Pancakes

## Strawberry Banana Pancakes

Four pancakes filled with sliced fresh banana and crowned with cool strawberry topping, more<sup>17</sup> bananas and<sup>23</sup> whipped topping.

<sup>17</sup>Driven by a nameless fear, a whisper in the dark behind me, I flee ahead of I know not what. Whenever I turn, there's nobody behind me. And yet someone is clearly stealing the ketchup. WHY?



Stuffed French Toast

## Stuffed French Toast

Cinnamon raisin French<sup>18</sup> toast stuffed with sweet cream cheese filling, topped with cool strawberry or your choice of fruit compote and whipped topping.

<sup>18</sup>Nightmares again. I wake up covered in sweat, and what seems to be a thin sheen of maple syrup

WHO IS MOHAWK GIRL?



Rooty Jr.

## Rooty Jr.

A kids only<sup>19</sup> version of our house signature Rooty Tooty. One scrambled egg, one strip of bacon, one pork sausage link and one fruit-topped buttermilk pancake.

<sup>19</sup>The decision not to hyphenate "kids only" is likely connected to the omission of the serial comma. I wonder if the author is British. I wonder if he sleeps at night.

<sup>23</sup>My life is feeding, fleeing, fighting, and forgetting.



Ham & Egg Melt

**Ham & Egg Melt**  
Grilled sour-dough bread stuffed with ham, scrambled eggs, Swiss and American cheeses.<sup>20</sup>

<sup>20</sup>Ordered this at an IHOP in Rochester, New York. There was blood on the floor. Some of it was mine.

ENOUGH WITH YOUR PANCAKES



ENOUGH WITH YOUR GOD DAMN PANCAKES



Rise 'N Shine

## Rise 'N Shine

Two eggs, toast and hash browns served with your choice<sup>21</sup> of two strips of bacon or two pork sausage links.

<sup>26</sup>rent a storage unit. Sleep there. Fill it with pancakes. Leave.



The Big Steak Omlette

## The Big Steak Omlette

Tender strips of steak, hash browns, tomatoes and Cheddar cheese. Served<sup>22</sup> with house salsa.

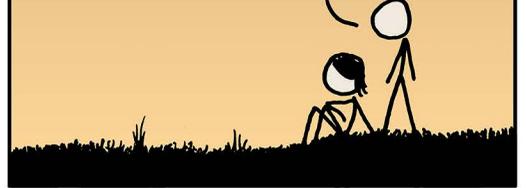
<sup>22</sup>Woke up in Las Vegas. They're closing the Star Trek Experience today. The IHOP up the strip had pancake platters named after various states. None of them sounded like home.

Fuck it. I'm just going to Waffle House.

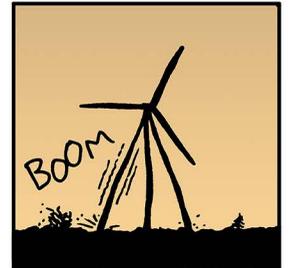
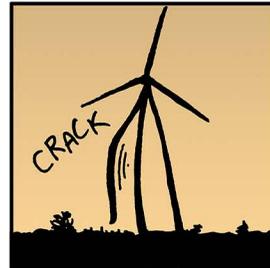
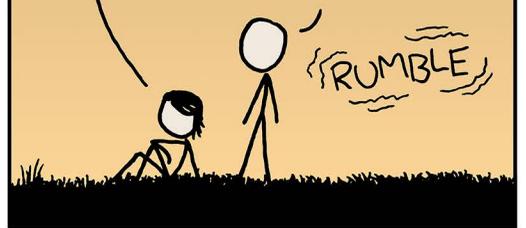
THIS IS A PARODY OF THE FASCINATING BOOK HOUSE OF LEAVES.



I'M ALL FOR GREEN ENERGY, BUT THOSE TURBINES CREEP ME OUT. THEY REMIND ME OF WAR OF THE WORLDS, OR THE TRIPOD BOOKS.

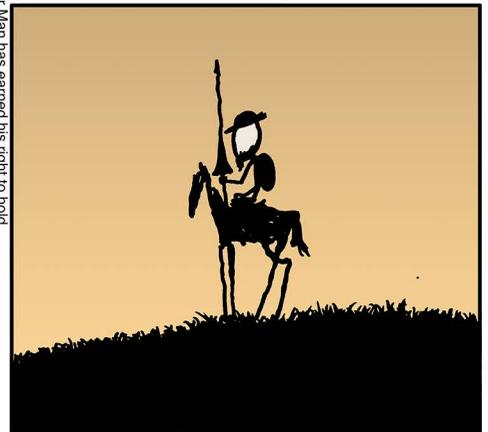
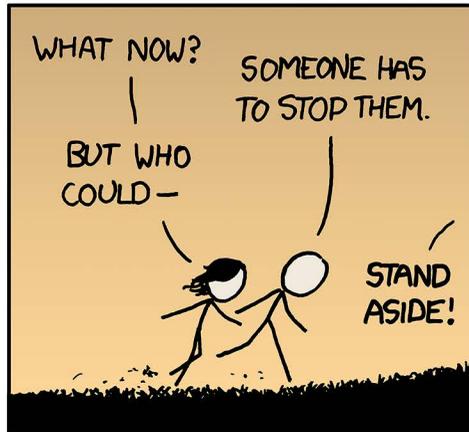
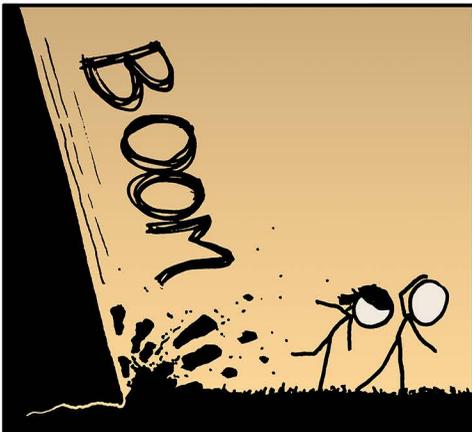
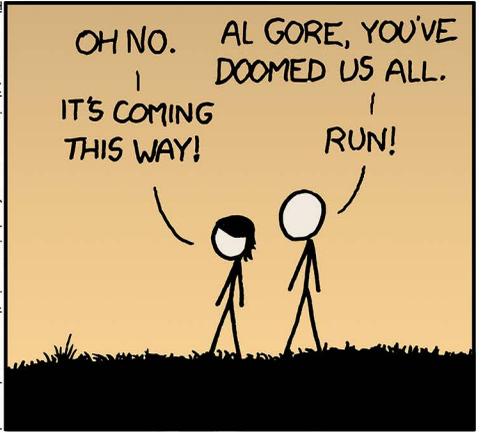


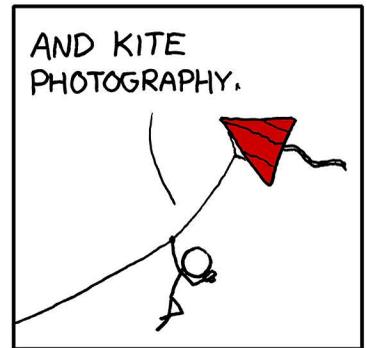
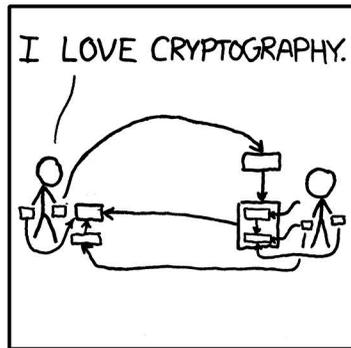
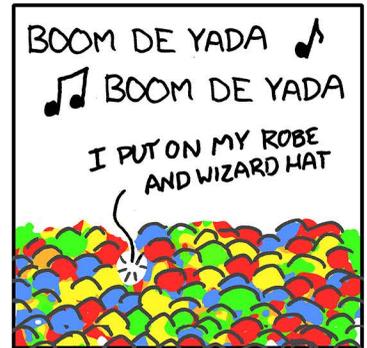
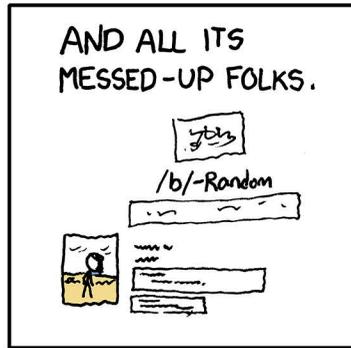
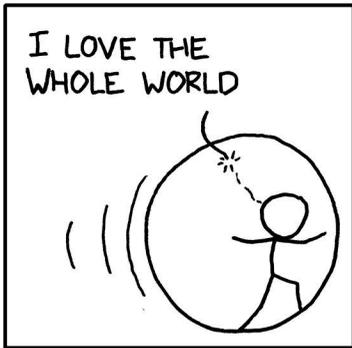
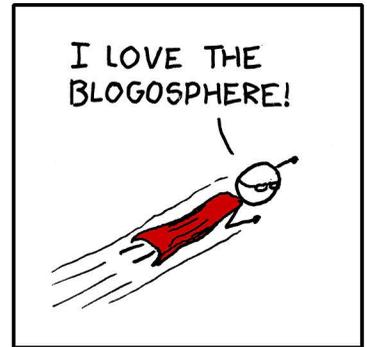
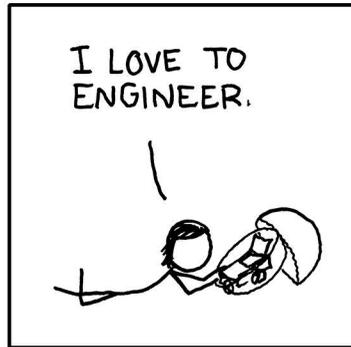
THEY ARE UNNERVING. I CAN'T SHAKE THE FEELING THAT AT ANY MOMENT THEY'LL —

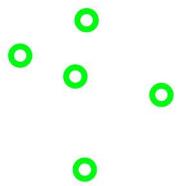
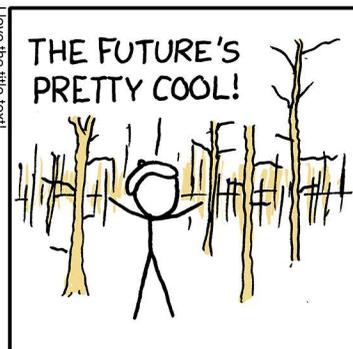
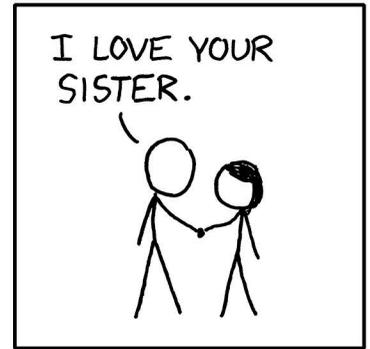
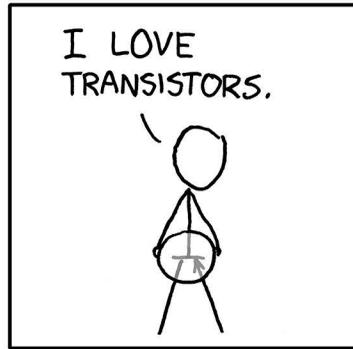
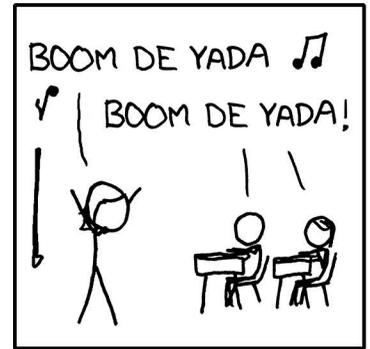
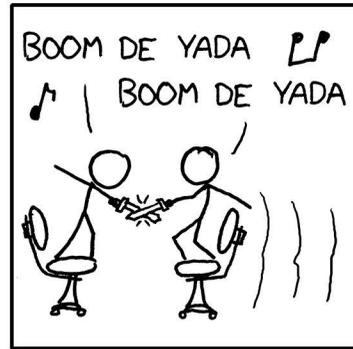
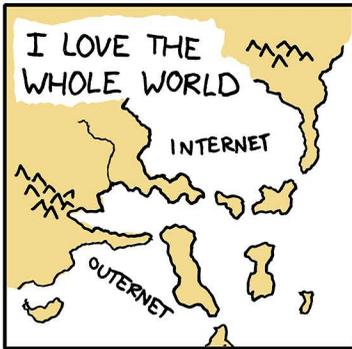


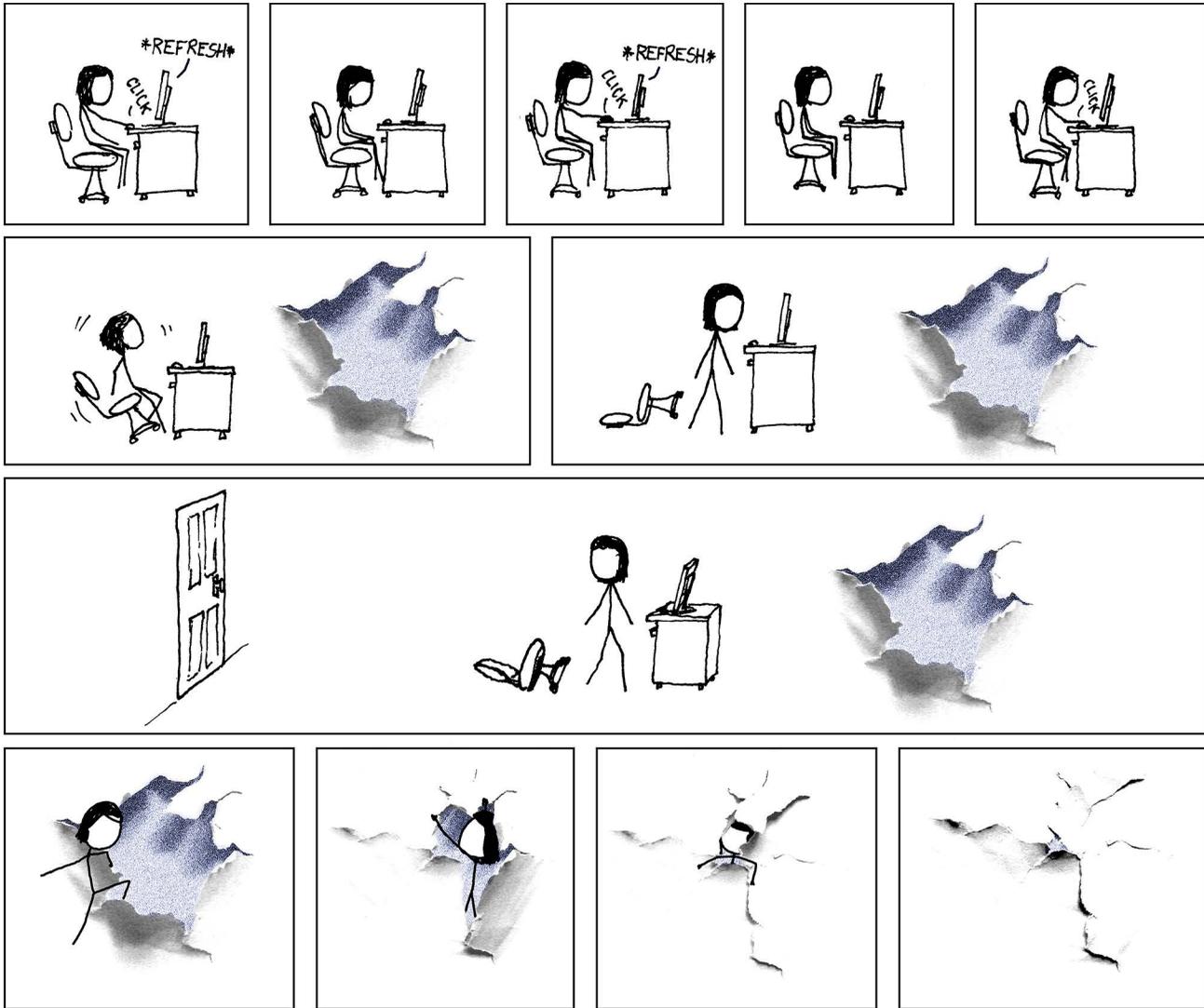


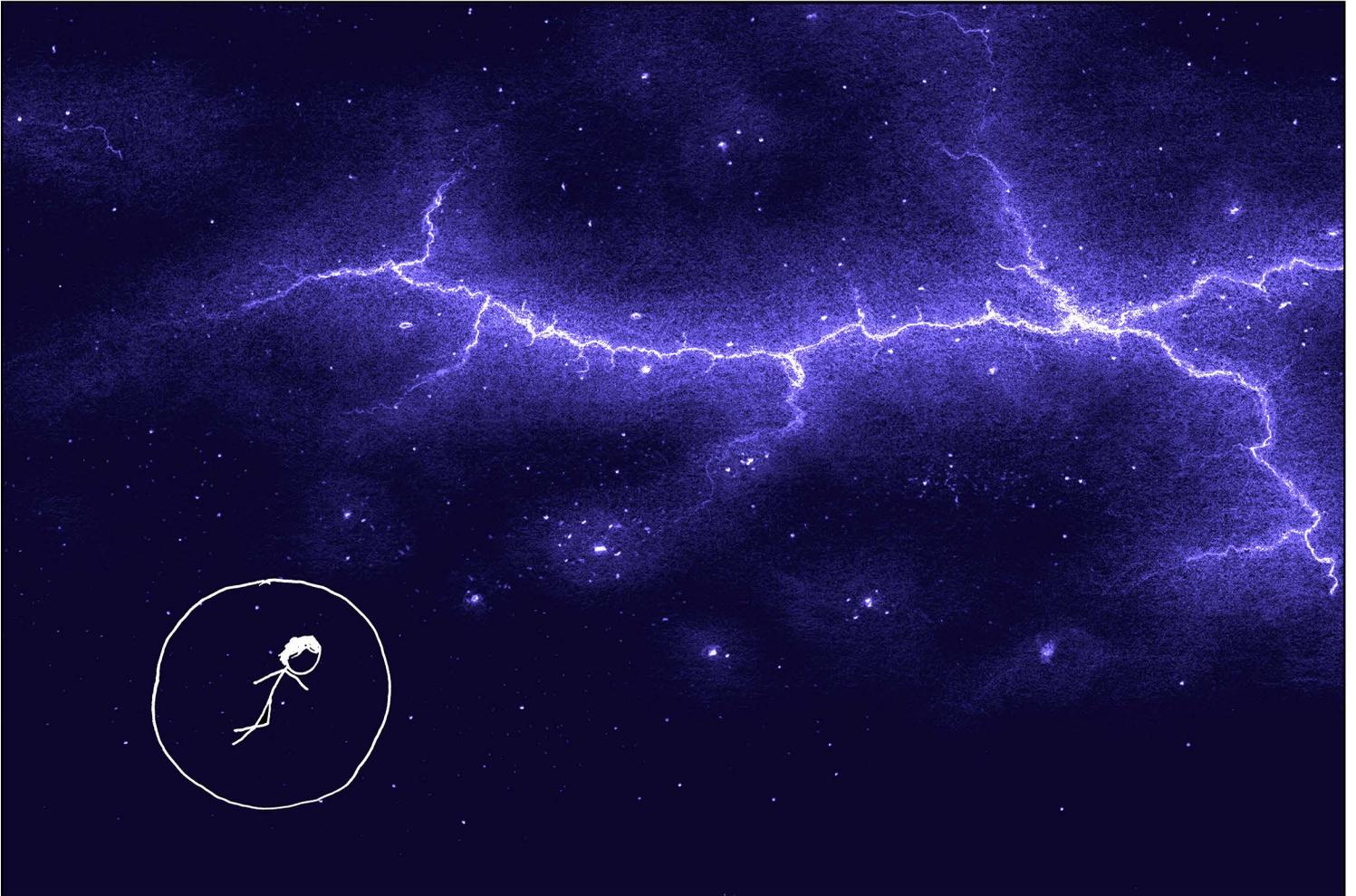
The moment their arms spun freely in our air, they were doomed -- for Man has earned his right to hold this planet against all comers, by virtue of occasionally producing someone completely batshit insane.











Wait, damn, I think I spotted a new email on the last refresh.

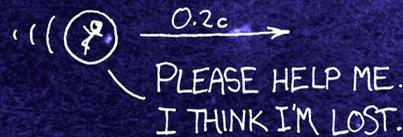
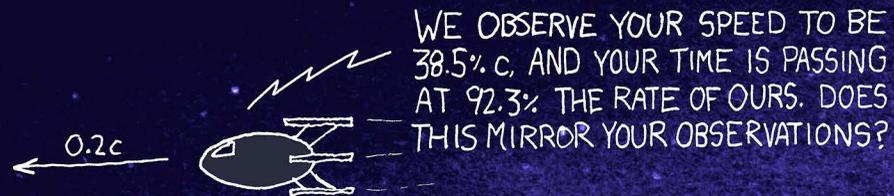
# CHAPTER 15: SPECIAL RELATIVITY

## PROBLEM 1:

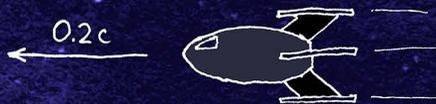
TWO SPACECRAFT TRANSMIT MESSAGES TO EACH OTHER WHILE PASSING AT CONSTANT VELOCITIES OF...



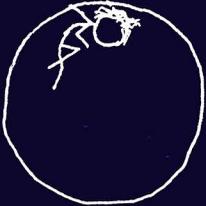
MEANWHILE:



Maybe someday I'll get to write the Wikipedia article about this place! Wait, damn, original research.



I SHOULD  
FEEL SCARED.



BUT I DON'T.



MAYBE THIS  
IS A DREAM



BUT IT DOESN'T  
FEEL LIKE ONE.



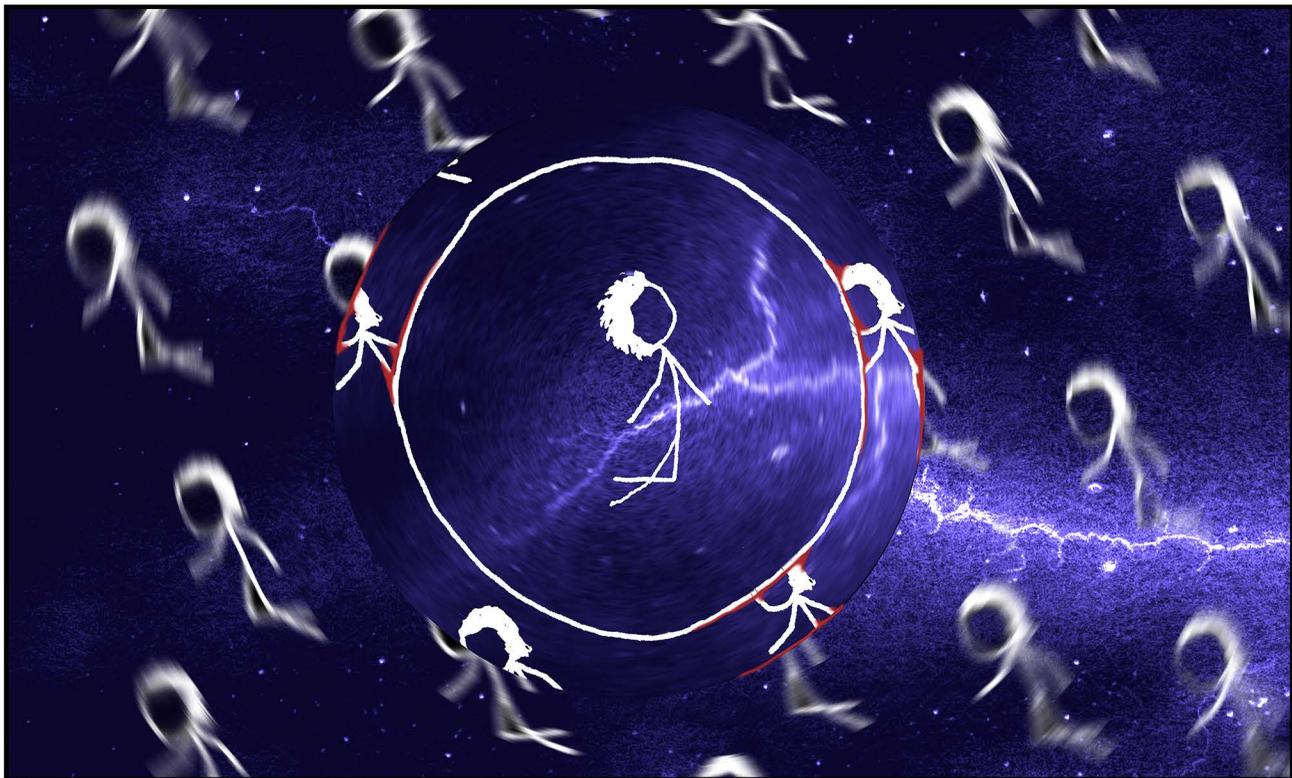
OKAY, FOUND YOU.  
WHO ARE YOU?



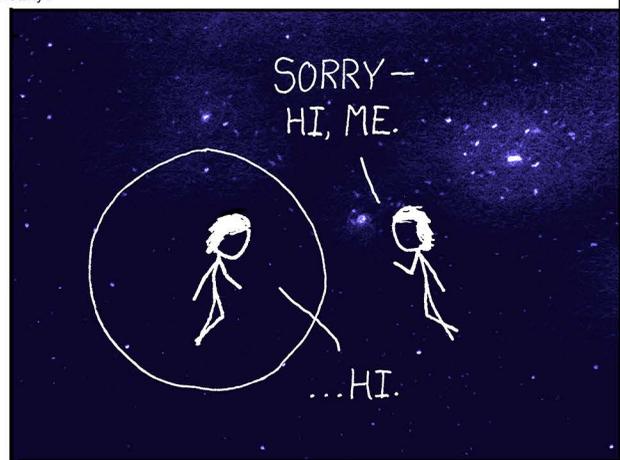
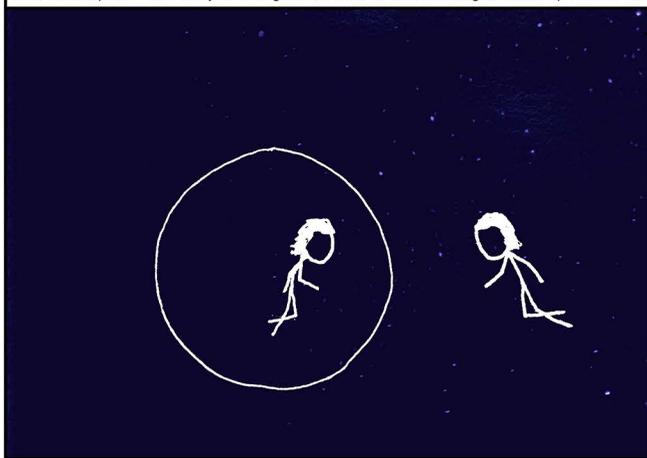
ER, HANG ON.

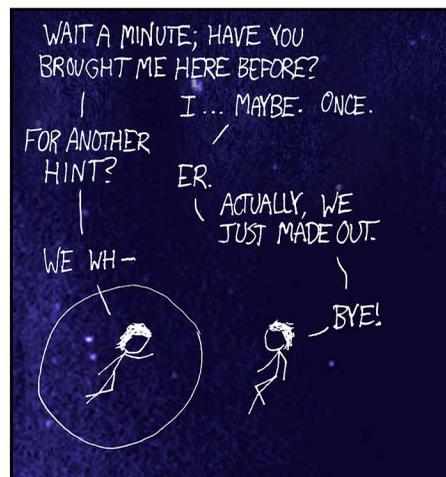
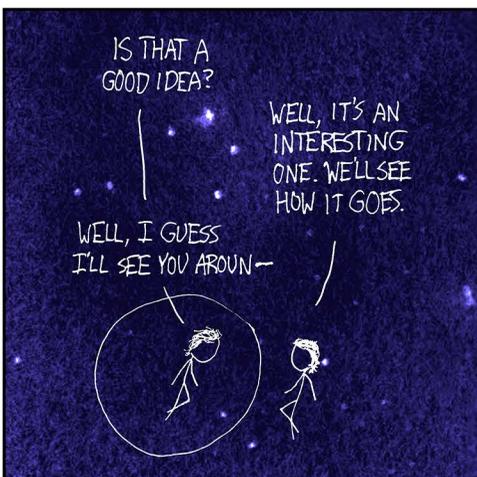
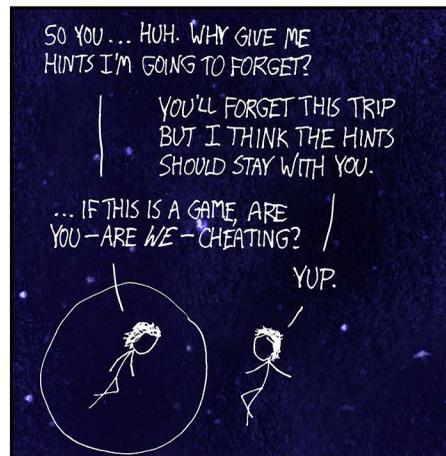
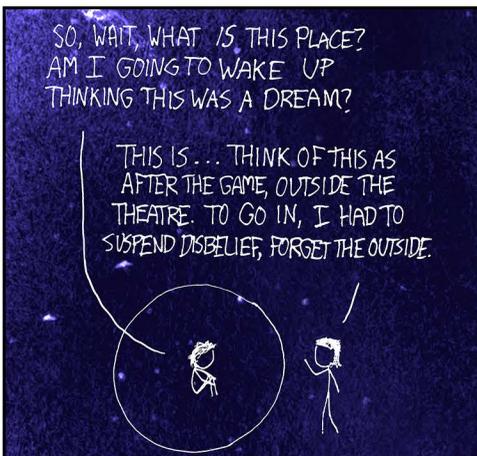
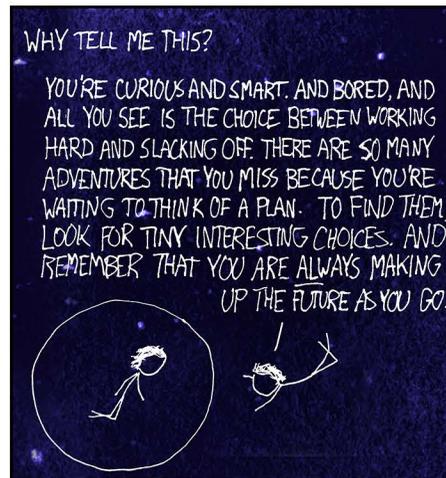
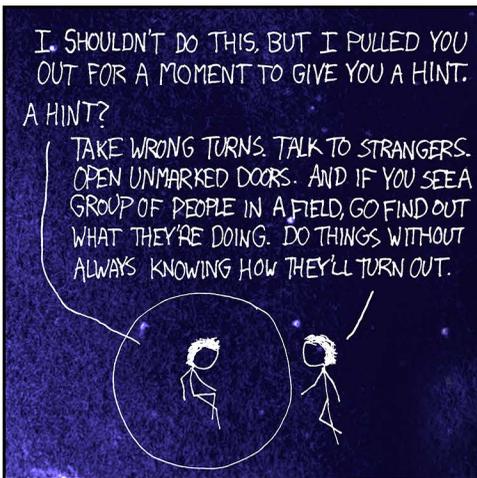
THIS NEXT PART MIGHT  
BE A LITTLE WEIRD.



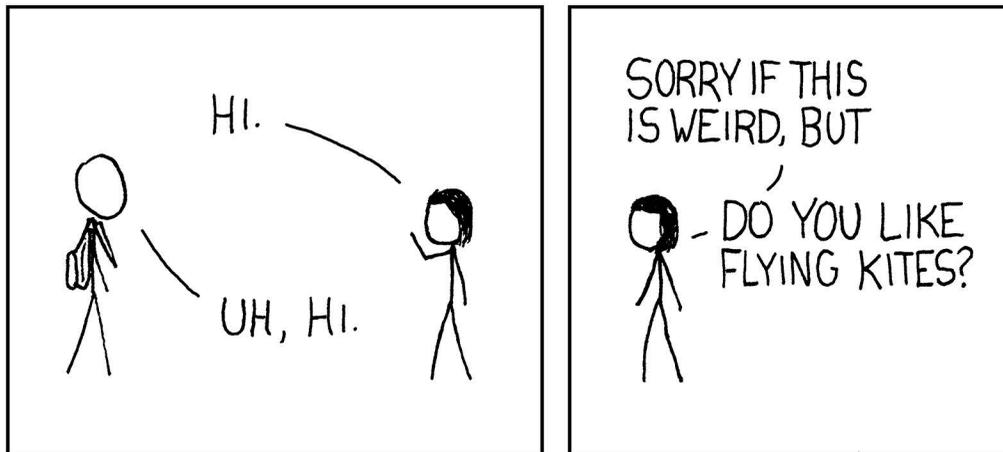
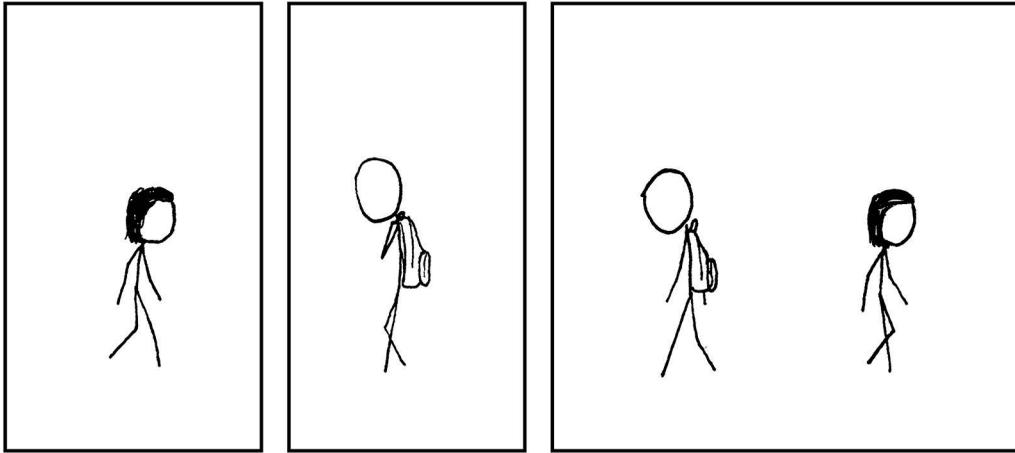


Wait, this is space -- how are you talking to me? And, as an afterthought, what's up with the hole in reality?



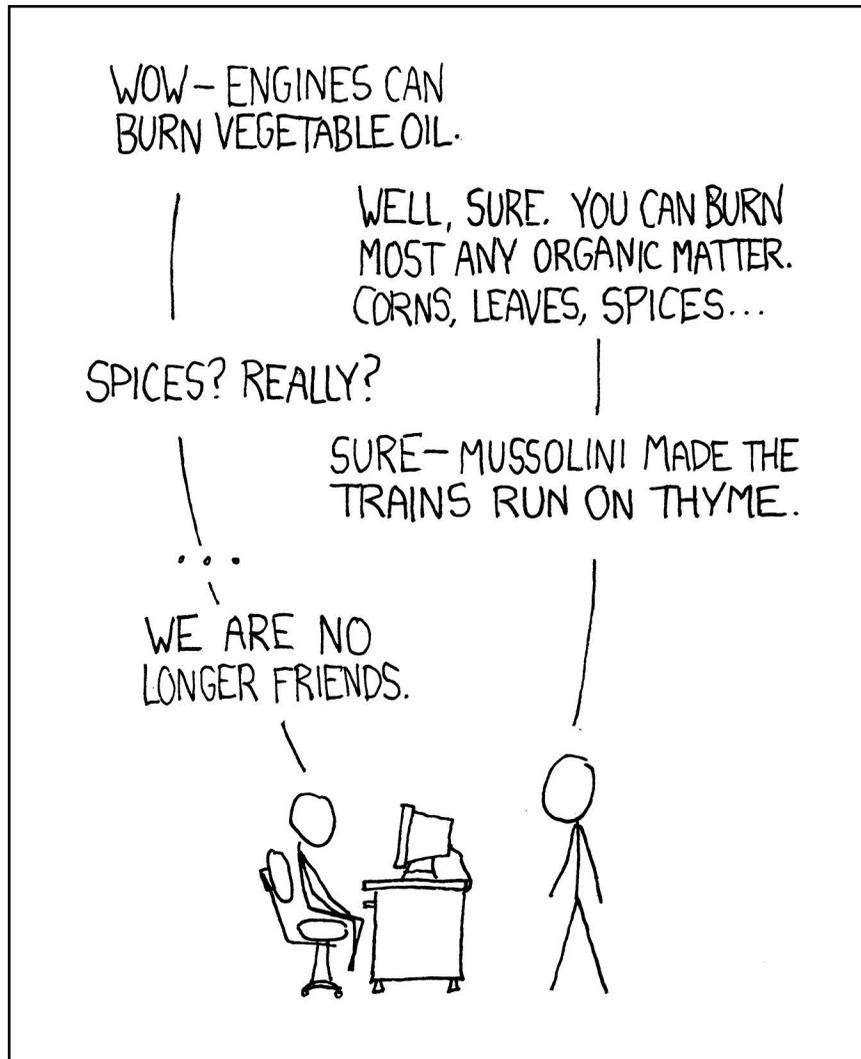


Making out with yourself: now an official xkcd theme? Troubling.



I wonder what percentage of not-obviously-busy people on the street would say yes to kite-flying with a stranger. This looks like a job for Science!

HALF OF WHAT YOU SEEK IS HERE / AND HALF YOU'VE SEEN BEFORE



I have nothing to apologize for.

429c6822BE41C334BE616EFFF8B5A320

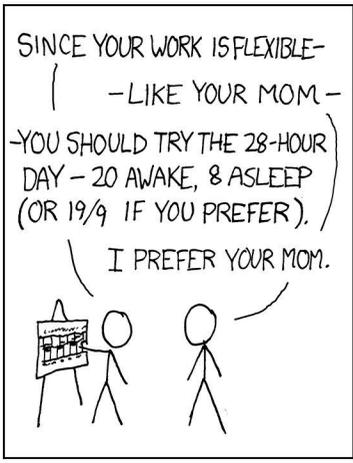
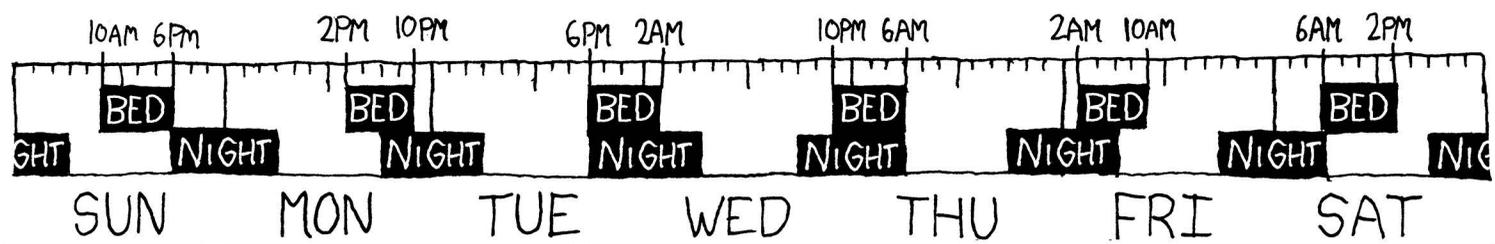
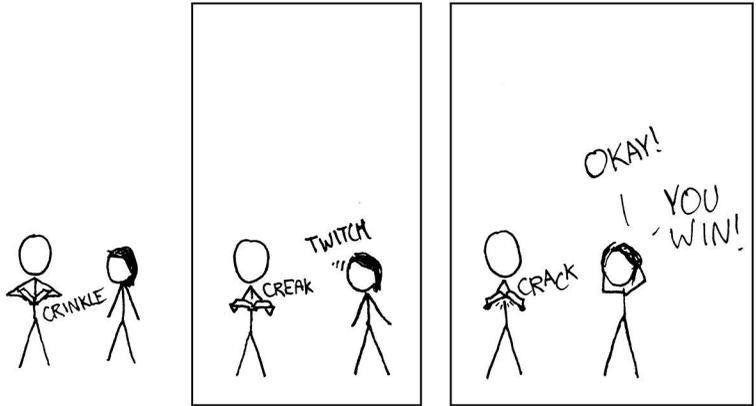
SO WHY DON'T YOU WISE UP A BIT / AND DIGG A LITTLE MORE

100000

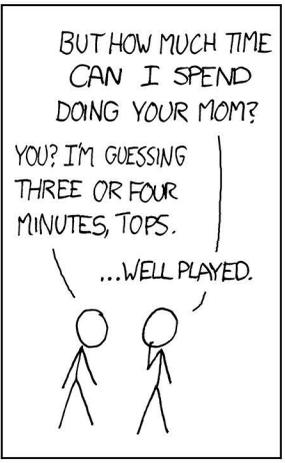
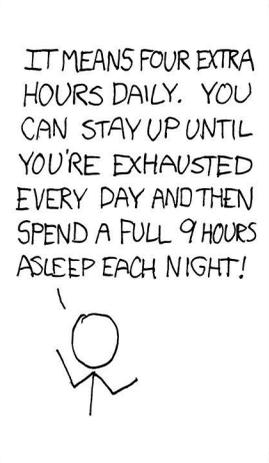
ADVANTAGES TO DATING LIBRARIANS

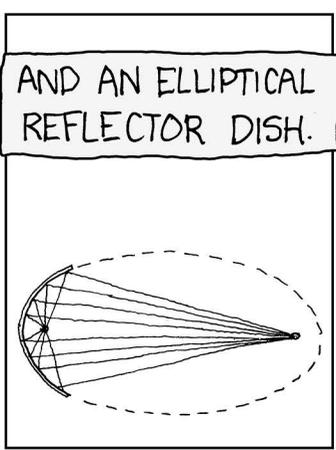


Don't expect any leniency on late fees, though.

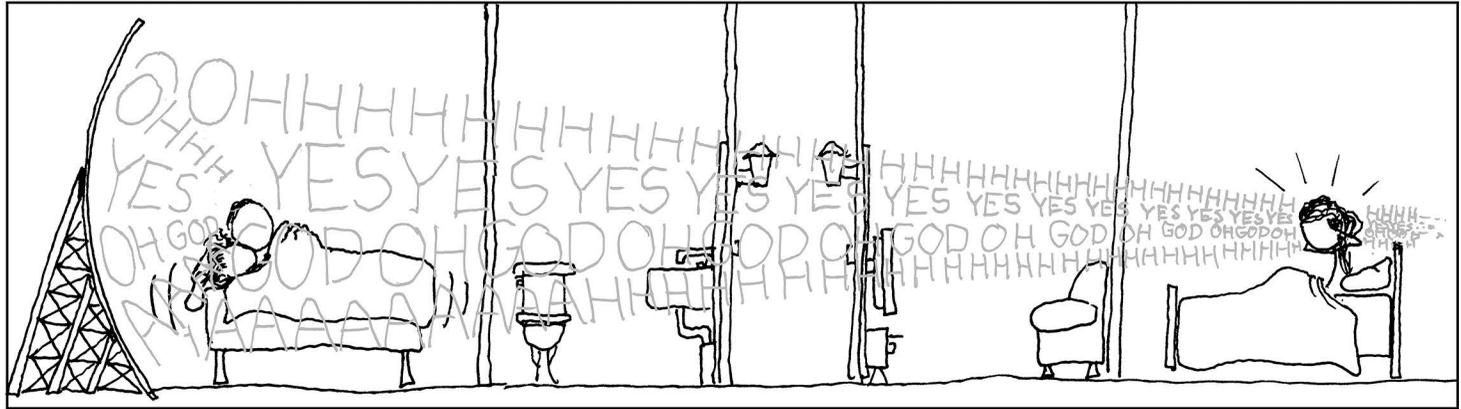


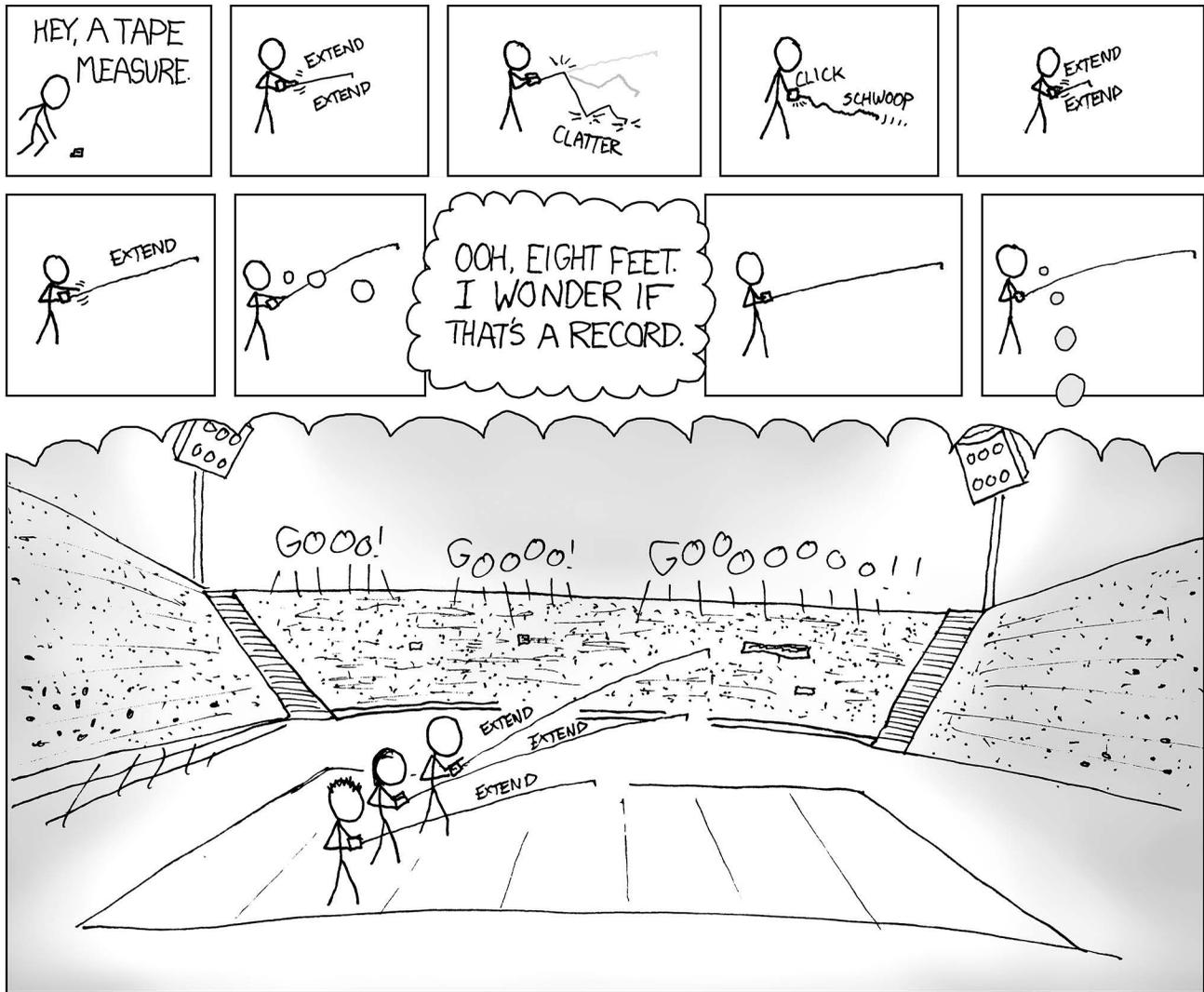
Small print: this schedule will eventually drive one stark raving mad.





Spherical or parabolic reflectors would of course lead to aberrant behavior.



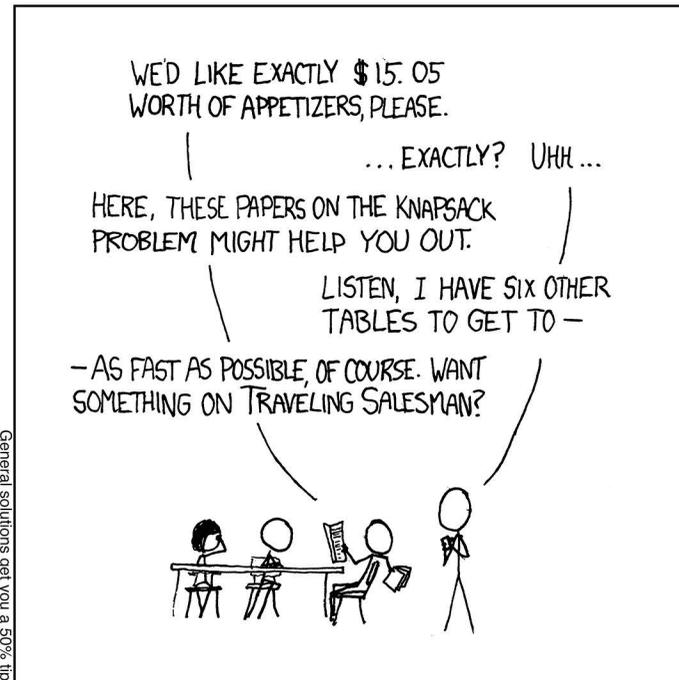


This sequence was later reproduced in the International Tape-Extending Federation archives, retitled 'The Founding of the Sport'.

# MY HOBBY: EMBEDDING NP-COMPLETE PROBLEMS IN RESTAURANT ORDERS

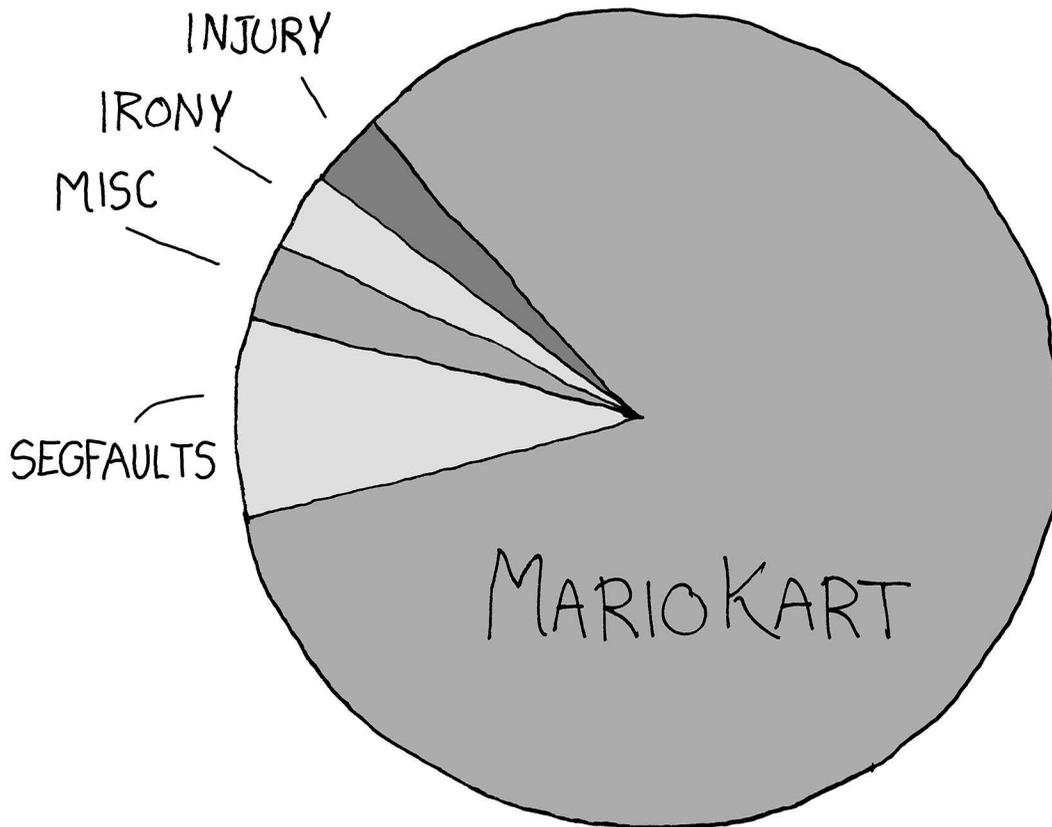
CHOTCHKIES RESTAURANT	
~ APPETIZERS ~	
MIXED FRUIT	2.15
FRENCH FRIES	2.75
SIDE SALAD	3.35
HOT WINGS	3.55
MOZZARELLA STICKS	4.20
SAMPLER PLATE	5.80
~ SANDWICHES ~	
BARBECUE	6.55

General solutions get you a 50% tip.

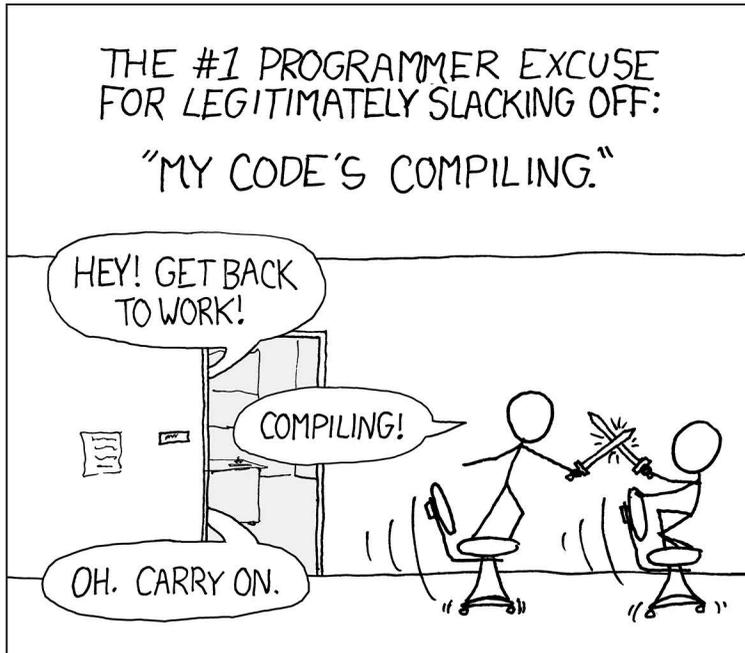


I WROTE A PERL SCRIPT TO GENERATE  
SETS OF PRICES WITH ONLY ONE SOLUTION.  
BUT THE SCRIPT HAD A BUG (YOU CAN'T  
COMPARE IEEE FLOATS FOR EQUALITY) SO THERE  
ARE ACTUALLY TWO, AND ONE IS EASY  
(7 MIXED FRUITS).

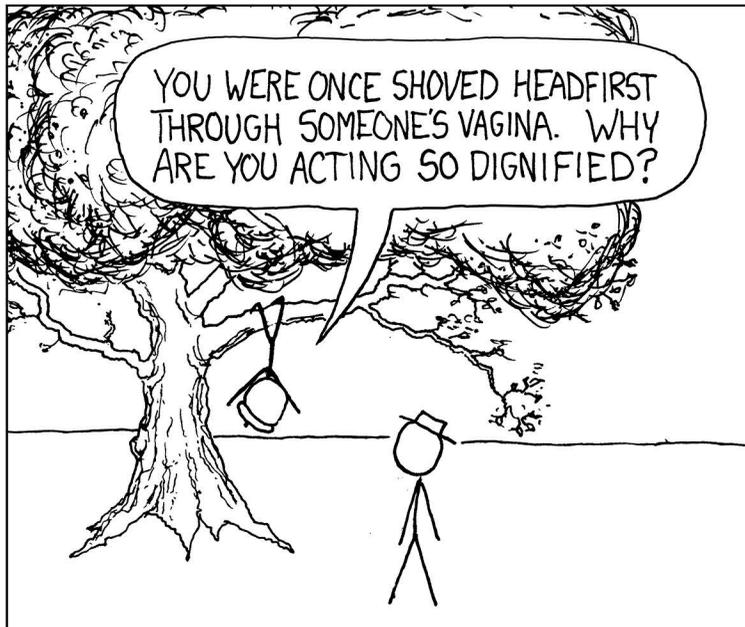
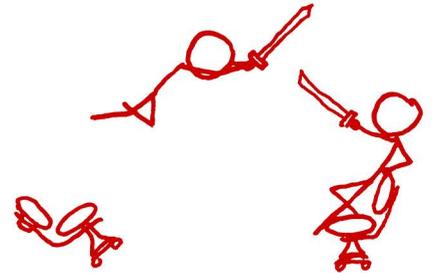
# MY PROFANITY USAGE BY CAUSE:



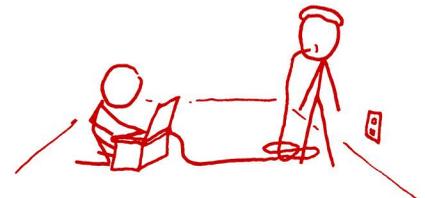
You can evade blue shells in Double Dash, but it is deep magic.

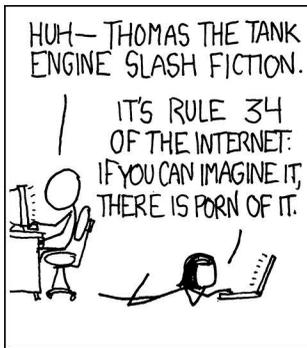


'Are you stealing those LCDs?' 'Yeah, but I'm doing it while my code compiles.'



'I don't know, why is your beret staying on your head?' 'Staples.'



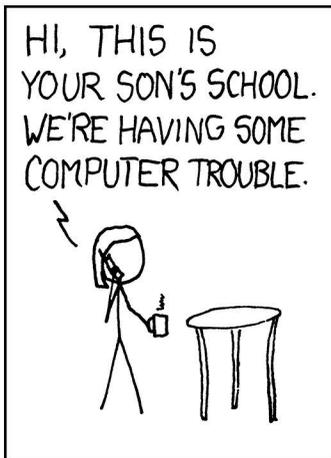
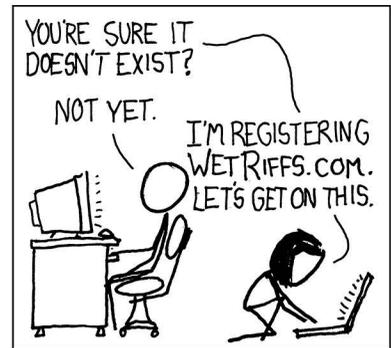


Okay, Lance. For entry into the college bowl, spell 'Throbbing'.



ACTUALLY, THAT LAST ONE WOULD LOOK  
PRETTY HOT. AS LONG AS THEY  
WERE UNPLUGGED OR WATERPROOFED...

RIVULETS OF WATER RUN DOWN HER  
CHEST, THE SMOOTH BODY OF THE  
GUITAR FIRM AGAINST HER HIPS.



OH, DEAR — DID HE  
BREAK SOMETHING?

IN A WAY—



DID YOU REALLY  
NAME YOUR SON  
Robert'); DROP  
TABLE Students;-- ?

OH. YES. LITTLE  
BOBBY TABLES,  
WE CALL HIM.

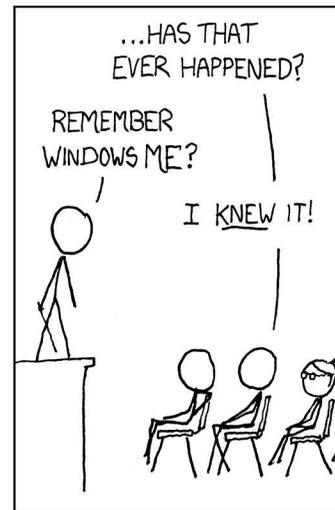
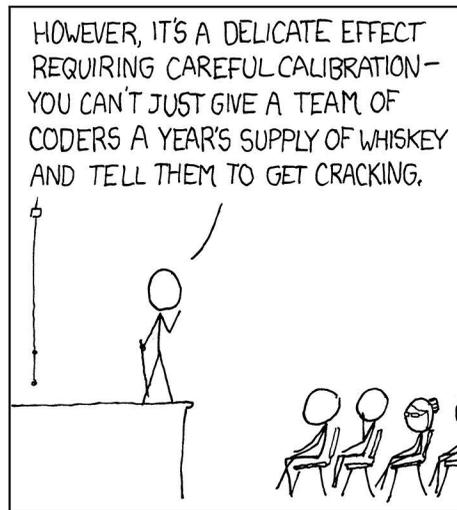
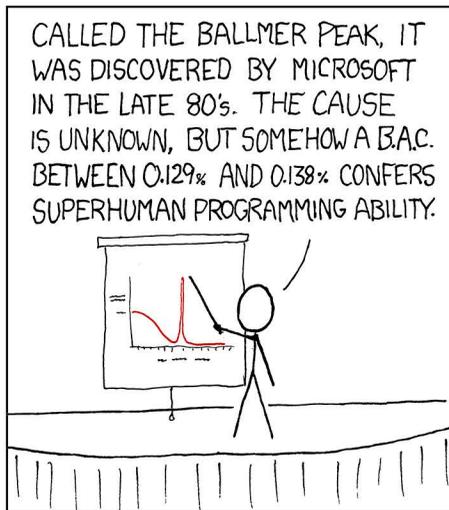
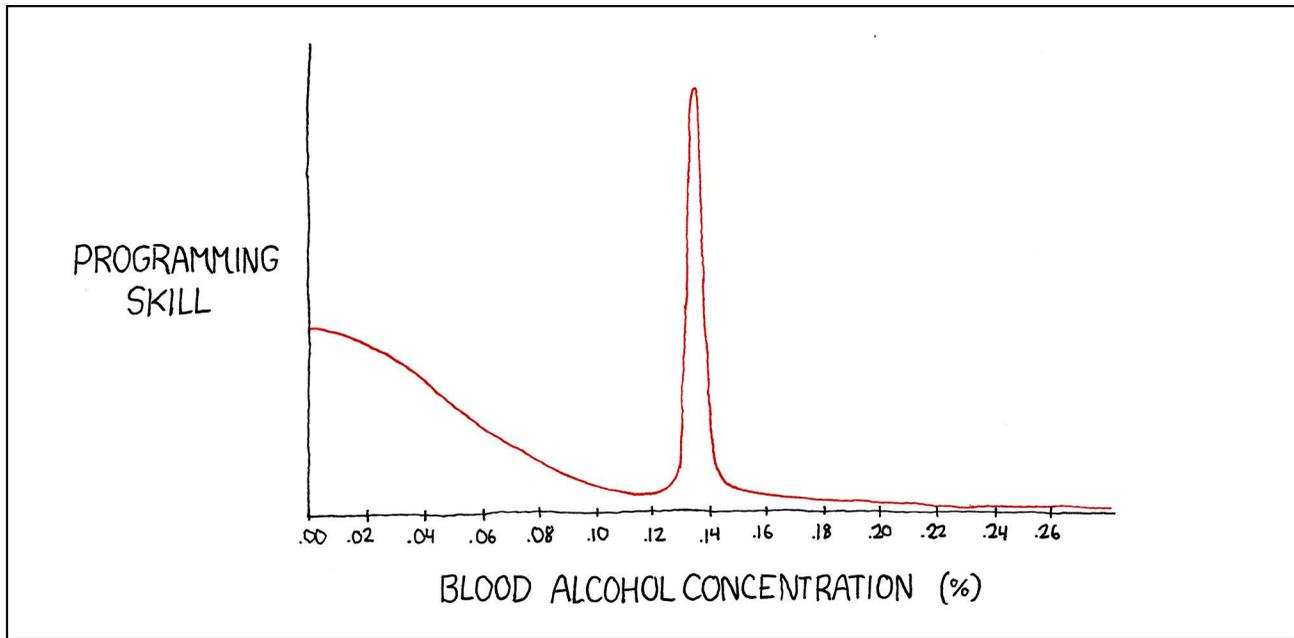
WELL, WE'VE LOST THIS  
YEAR'S STUDENT RECORDS.  
I HOPE YOU'RE HAPPY.



Her daughter is named Help. I'm trapped in a driver's license factory.

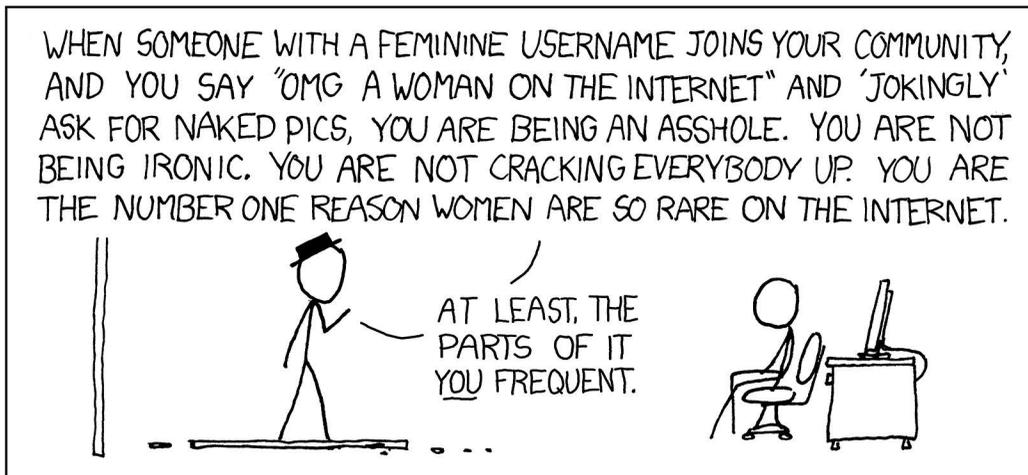


Wikipedia's role as brain-extension, while a little troubling, is also really cool.

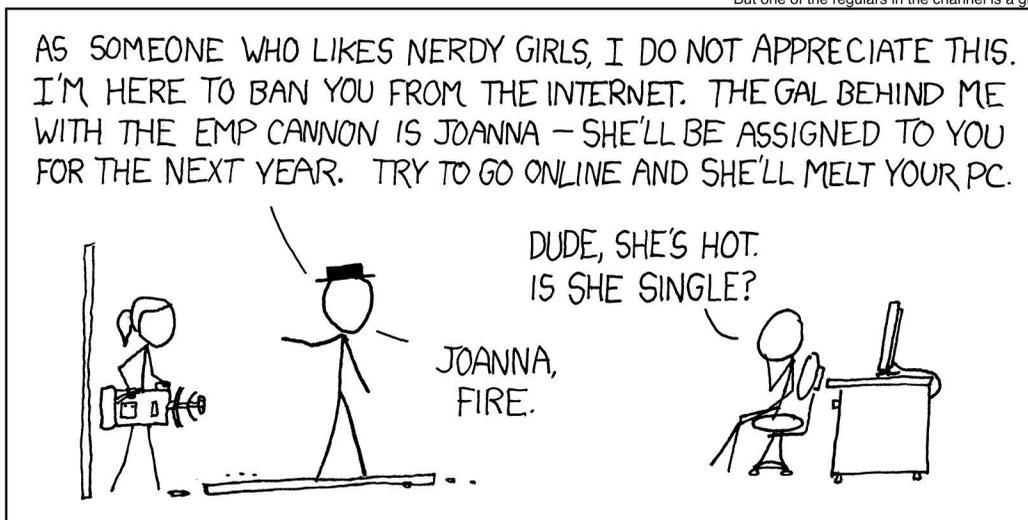


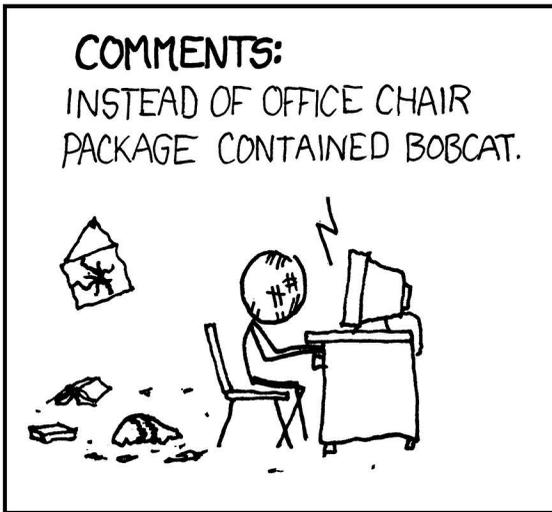
Apple uses automated screenshots IVS.

IF YOU LOOK CAREFULLY, THE PRECISE LOCATION OF THE PEAK SHOULD NOT COME AS A SURPRISE.

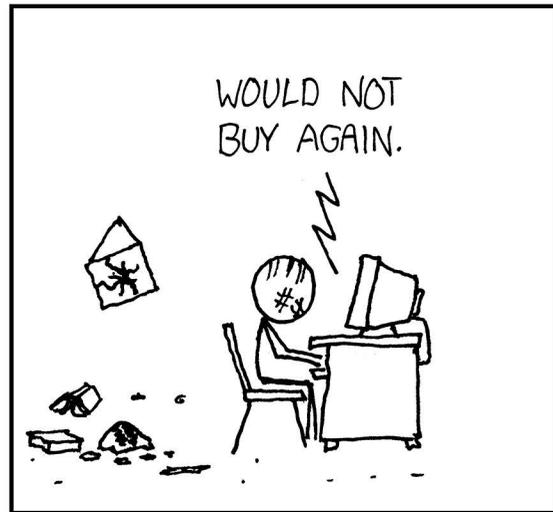


But one of the regulars in the channel is a girl!





You can do this once in every 30 times and still have 97% positive feedback.

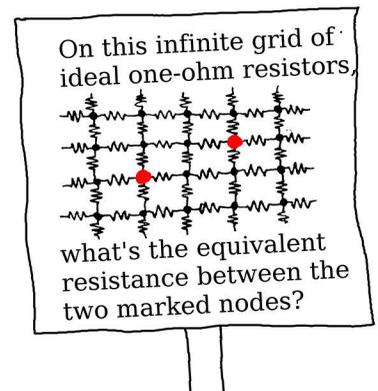
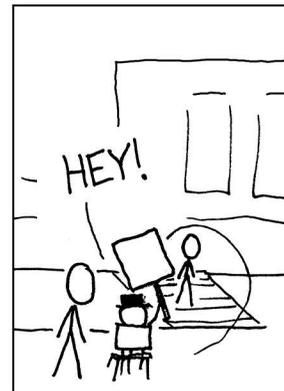
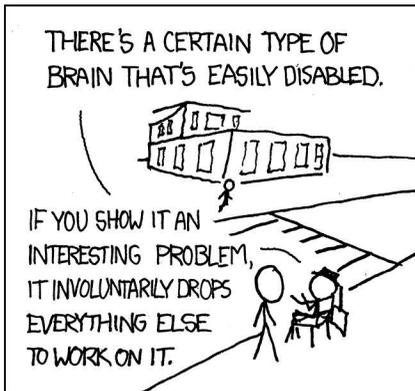




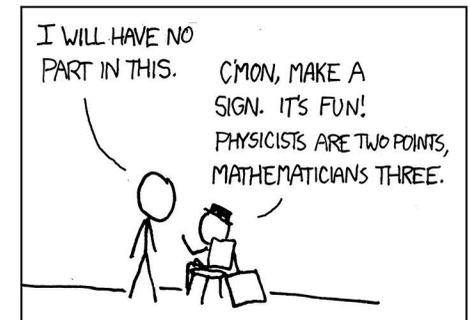
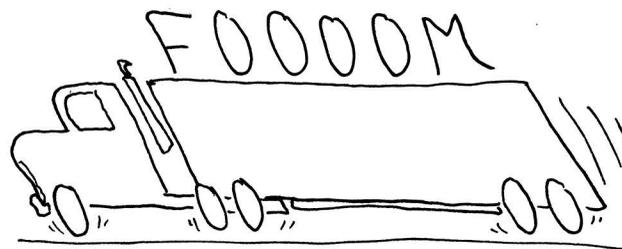
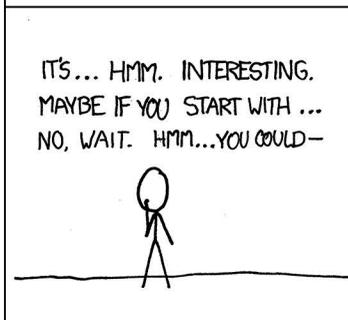
I GUESS SHE'S  
STILL MAD.



And she put sweet nothings in all my .conf files. It'll take me forever to get X working again.

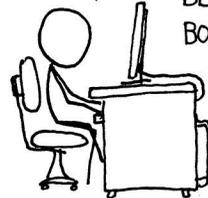


I first saw this problem on a Google Labs Aptitude Test. A professor and I filled a blackboard without getting anywhere. Have fun.



AS A PROJECT WEARS ON, STANDARDS  
FOR SUCCESS SLIP LOWER AND LOWER.

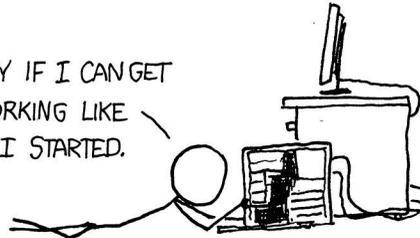
0 HOURS



OKAY, I SHOULD  
BE ABLE TO DUAL-  
BOOT BSD SOON.

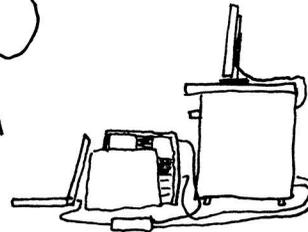
6 HOURS

I'LL BE HAPPY IF I CAN GET  
THE SYSTEM WORKING LIKE  
IT WAS WHEN I STARTED.



10 HOURS

WELL, THE DESKTOP'S A LOST CAUSE,  
BUT I THINK I CAN FIX THE  
PROBLEMS THE LAPTOP'S DEVELOPED.



24 HOURS

IF WE'RE LUCKY, THE SHARKS WILL STAY  
AWAY UNTIL WE REACH SHALLOW WATER.

IF WE MAKE IT BACK ALIVE, YOU'RE  
NEVER UPGRADING ANYTHING AGAIN.

40% of OpenBSD installs lead to shark attacks. It's their only standing security issue.

YEAH? WELL, YOUR MOM TURNS EVERY  
CONVERSATION INTO A "YOUR MOM"  
JOKE AND IT'S BECOME UNBEARABLE.

I'M SERIOUS; I CAN'T TAKE  
THIS ANYMORE. I'M LEAVING.

... THAT'S WHAT SHE SAID!

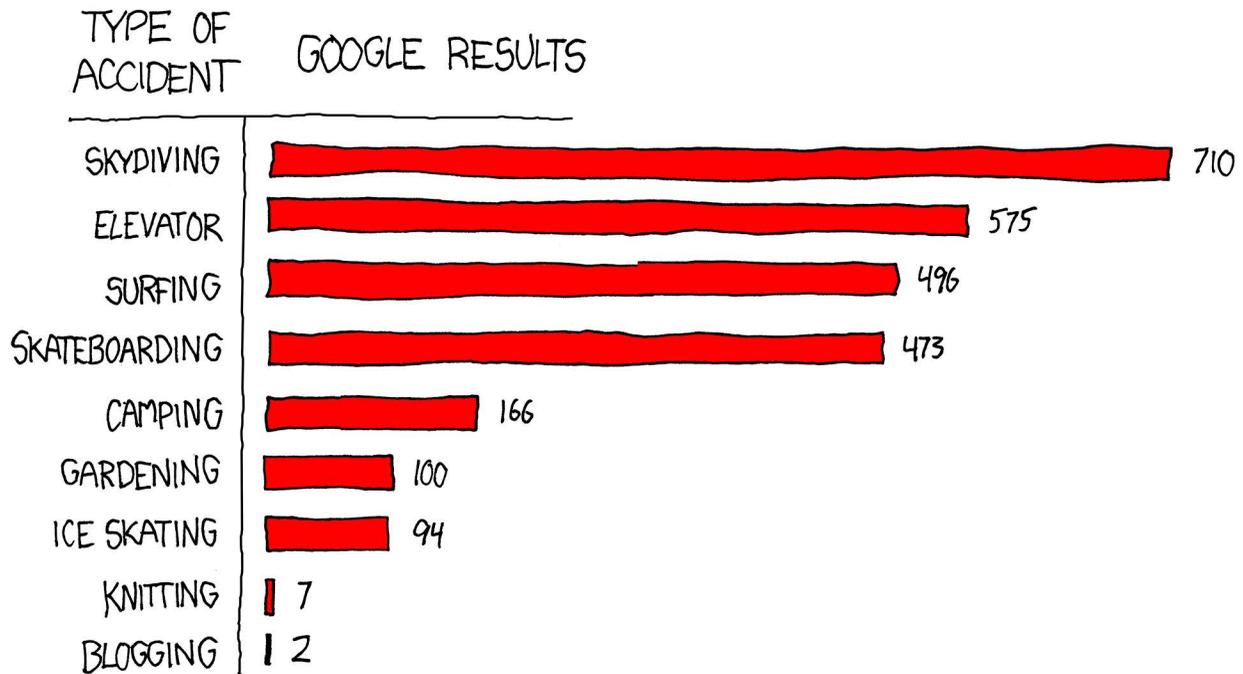
YES. YES, IT IS.



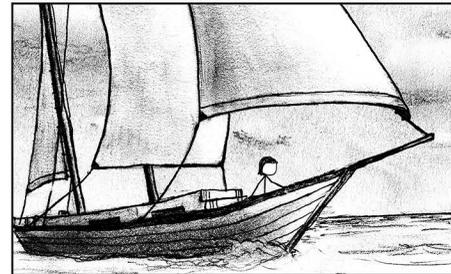
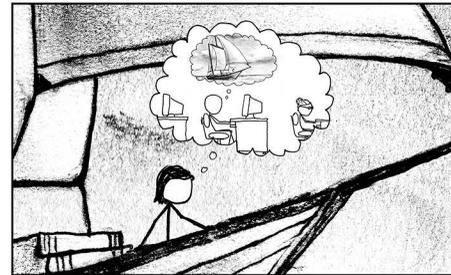
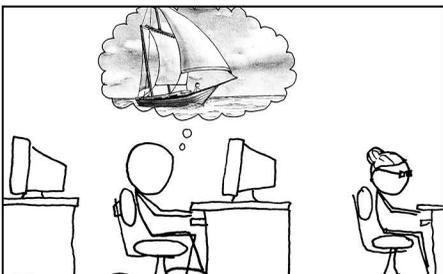
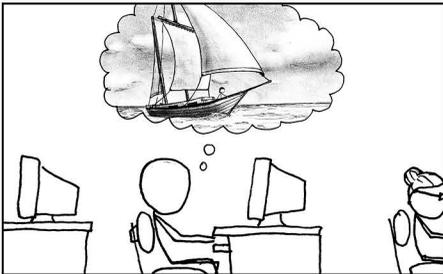
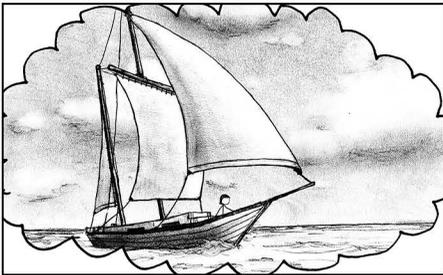
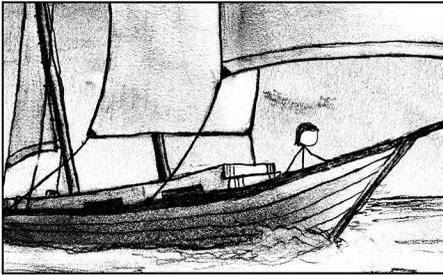
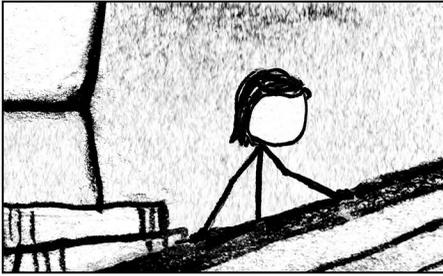
Yes, I mean she said that during sex. Yes, it was a little weird.

# DANGERS

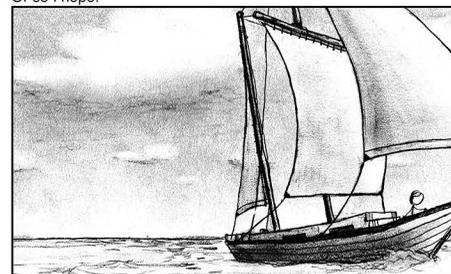
INDEXED BY THE NUMBER OF GOOGLE RESULTS FOR  
"DIED IN A \_\_\_\_\_ ACCIDENT"

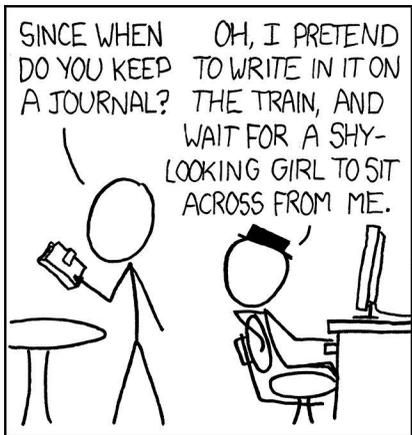


Zero results: 'snake charming' and 'haberdashery'. (Things like 'car' and 'boating' and such are of course the highest, by a huge margin.)

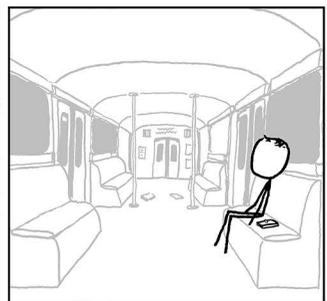
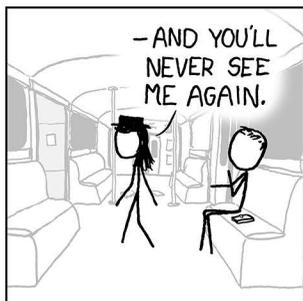
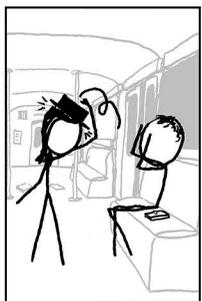
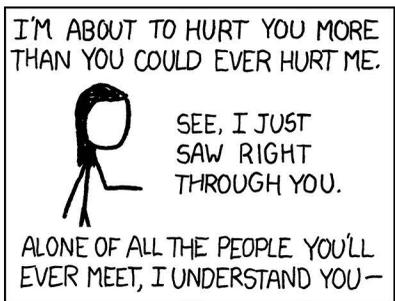
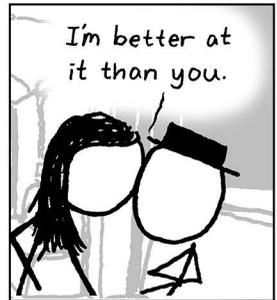
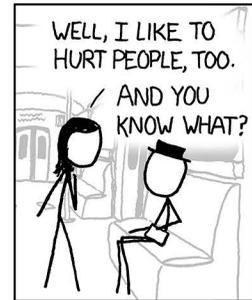
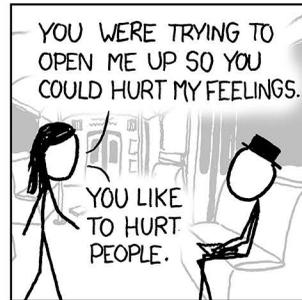
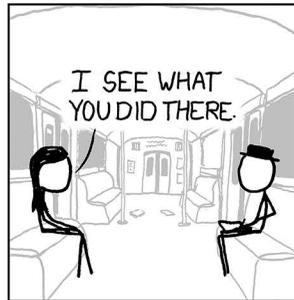
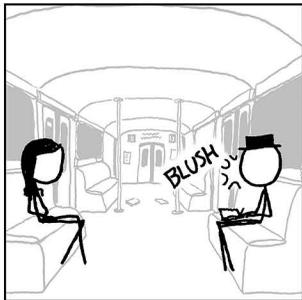


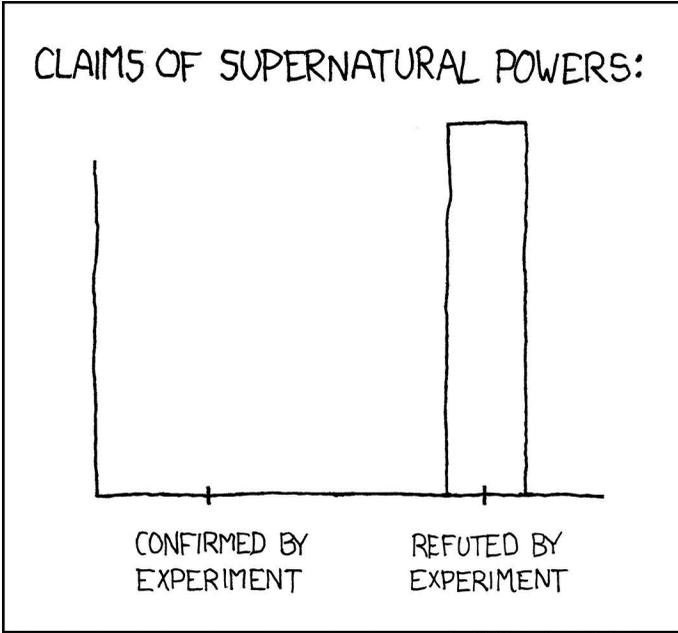
Or so I hope.



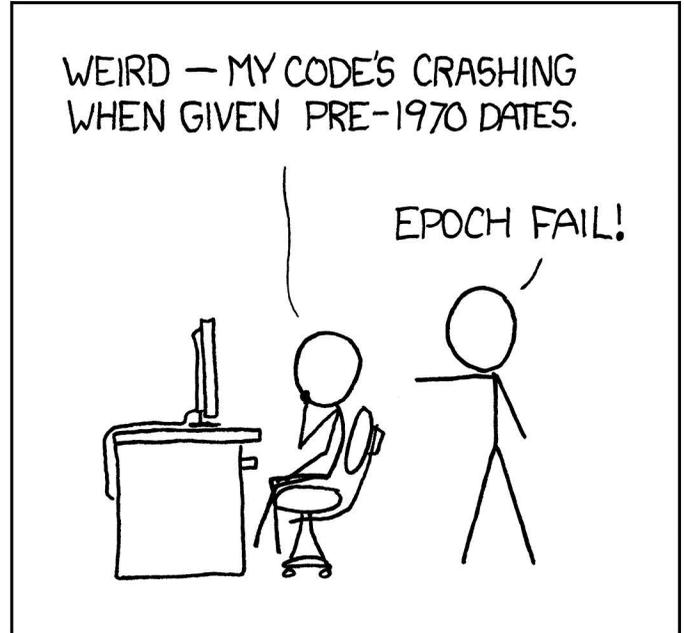


And the journal is filled with all the things I'd say to her if I were nice like you. I burn it when it's full.

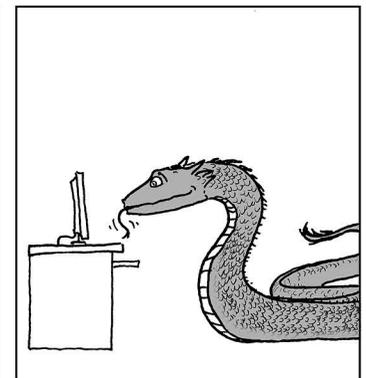
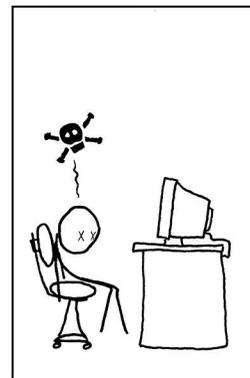
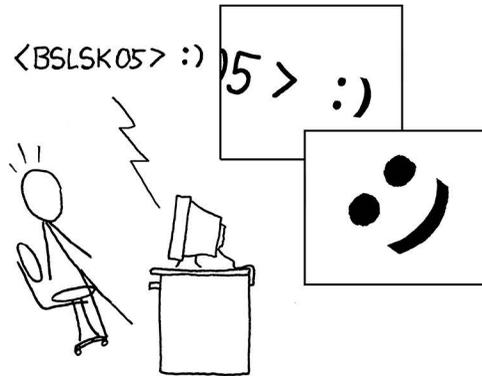




But THIS guy, he might be for real!

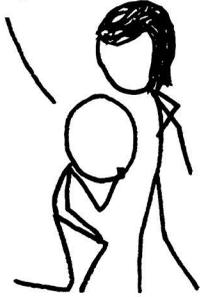


The universe started in 1970. Anyone claiming to be over 38 is lying about their age.



U+FDD0 is actually Unicode for the eye of the basilisk, though for safety reasons no font actually renders it.

IT'S NEAT HOW YOU  
CONTAIN A FACTORY  
FOR MAKING MORE  
OF YOU.



We are sexy, sexy Von Neumann machines.

ARE YOU COMING TO BED?

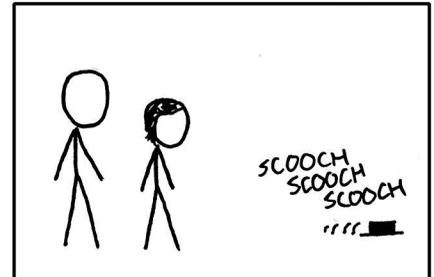
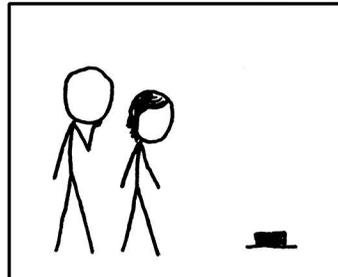
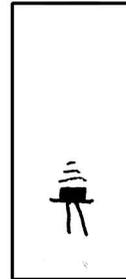
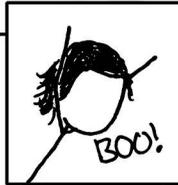
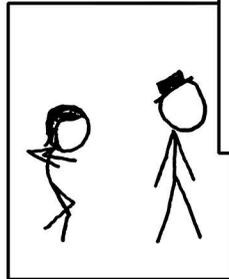
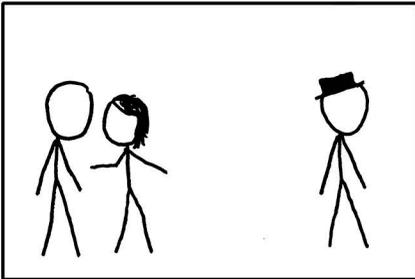
I CAN'T. THIS  
IS IMPORTANT.

WHAT?

SOMEONE IS WRONG  
ON THE INTERNET.



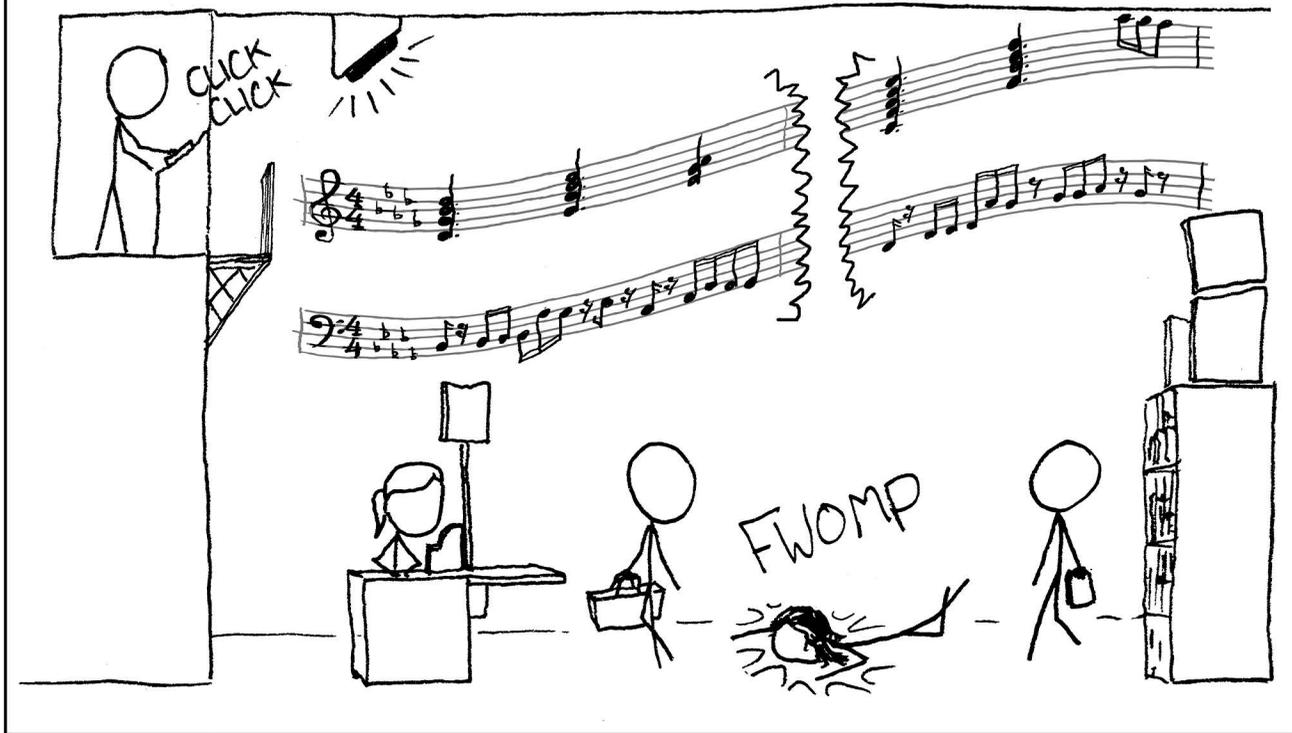
What do you want me to do? LEAVE? Then they'll keep being wrong!



101011

# MY HOBBY:

PAUSING IN-STORE MUSIC FOR A SPLIT SECOND AND WATCHING THE EX-MARCHING BAND KIDS STUMBLE.

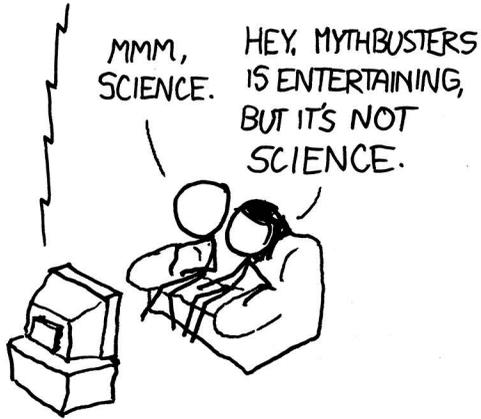


You can identify them ahead-of-time -- they lead with their left foot when the music starts.

THANKS TO JAMES ZETLEN, WHO ARRANGED  
THE LOVELY PIECE IN THE COMIC FOR ME.

101012

CAN A NINJA CATCH AN ARROW?  
ON THIS EPISODE, WE'LL FIND OUT!



BRAAAAAIIINNS..

ZOMBIE FEYNMAN! YOU GOT A PROBLEM WITH MYTHBUSTERS?

THEY FAIL AT BASIC RIGOR!



"IDEAS ARE TESTED BY EXPERIMENT." THAT IS THE CORE OF SCIENCE. EVERYTHING ELSE IS BOOKKEEPING.



Last week, we busted the myth that electroweak gauge symmetry is broken by the higgs mechanism. We'll also examine the existence of God and whether true love exists.

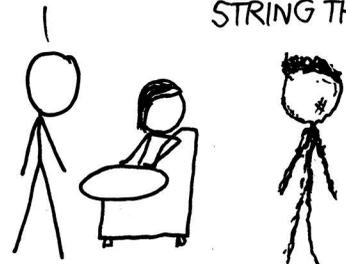
BY TEACHING PEOPLE TO HOLD THEIR BELIEFS UP TO EXPERIMENT, MYTHBUSTERS IS DOING MORE TO DRAG HUMANITY OUT OF THE UNSCIENTIFIC DARKNESS THAN A THOUSAND LESSONS IN RIGOR.



ANYWAY, BACK TO ZOMBIE STUFF. I HUNGER FOR BRAAAAAIIINNS!

UH, TRY THE PHYSICS LAB NEXT DOOR.

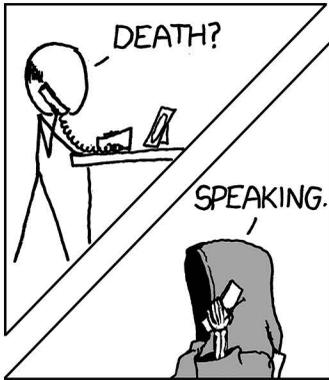
I SAID BRAINS. ALL THEY'VE GOT ARE STRING THEORISTS.



YOU JUST WON THE GAME.

IT'S OKAY! YOU'RE FREE!

I'm as surprised as you! I didn't think it was possible.



THIS IS THE BOSS.  
WHERE ARE YOU?  
YOU HAVEN'T BEEN TO  
THE OFFICE IN DAYS!

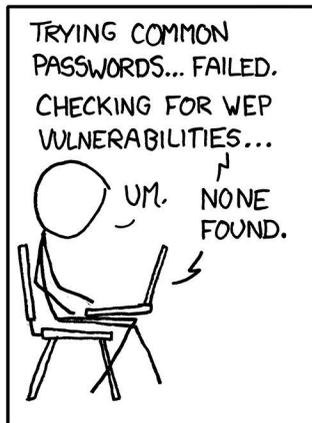
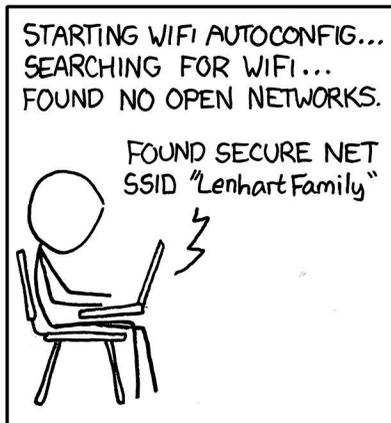


WHAT HAPPENED?  
YOU KNOW HOW WHEN  
SOMEONE DIES, THEY  
CAN CHALLENGE ME  
TO A GAME FOR  
THEIR SOUL?

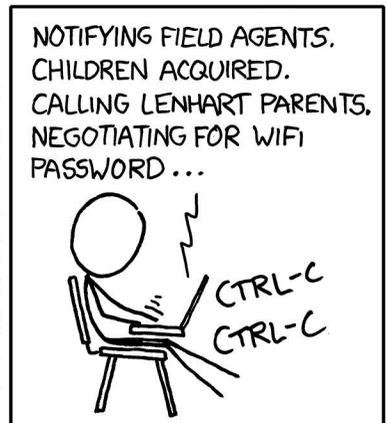
SURE, STANDARD  
PROCEDURE.

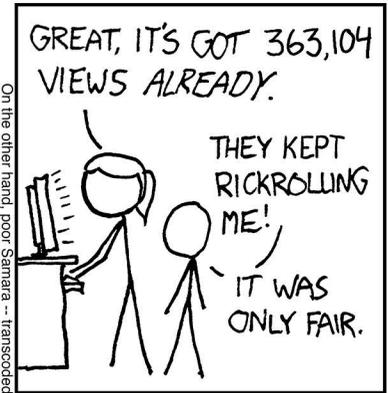
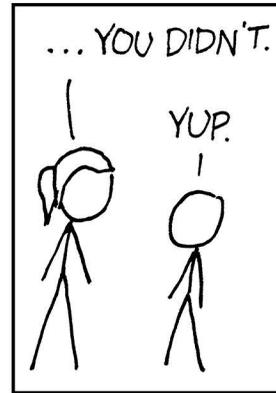
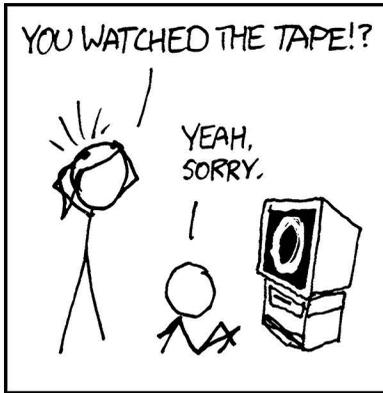


RIP Gary

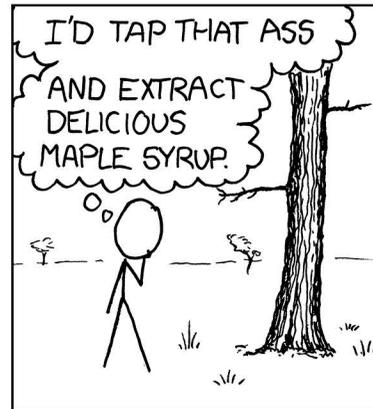


I hear this is an option in the latest Ubuntu release





On the other hand, poor Samara - transposed to FLV. No one deserves that.



Hey, when you're done draining the syrup, just leave the hole, okay?



YEARS PASS



MEGAN AND I FIRST MET AT  
A PARTY AT HER SISTER'S.

WE HIT IT OFF, OPENED UP, SHARED SECRETS, AND  
TALKED ABOUT EVERYTHING. AROUND US, THE PARTY  
WANED, BUT WE HID FROM SLEEP TOGETHER, TALKING  
THROUGH THE DEEPEST HOURS OF THE NIGHT.



THE DAWN FOUND US CURLED UP ON  
A COUCH, ASLEEP BUT STILL TOGETHER.

THAT EXPERIENCE, CONNECTING WITH A  
STRANGER AND FALLING RECKLESSLY IN  
LOVE, IS ONE OF LIFE'S GREATEST JOYS.

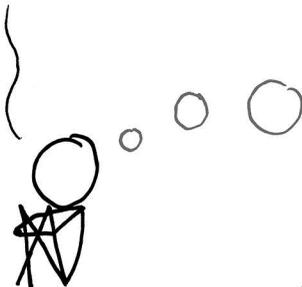
AND NOW THAT YOU'RE MARRIED,  
YOU'LL NEVER EXPERIENCE IT AGAIN.

IT'S THE PRICE YOU PAY FOR EVERLASTING LOVE.  
IT'S A SMALL ONE, BUT I HOPE IT STINGS A LITTLE.

ANYWAY, I WISH YOU AND MEGAN THE BEST.  
...HEY, MAN, YOU ASKED ME TO DO A TOAST.

Oh, huh, so you didn't know that story?

IF ONLY THERE WERE SOME WAY WE COULD BE TOGETHER.



WE'RE SO LUCKY TO HAVE EACH OTHER. HOW DID IT HAPPEN, ANYWAY?



I, UHH... I DON'T REMEMBER.

NO, REALLY, HOW DID WE GET TOGETHER? IT'S HARD TO IMAGINE IT HAPPENING.



IT DOES STRAIN THE BOUNDS OF FANTASY...

...FANTASY? THAT'S IT!

MY GOD, IT'S THE ONLY EXPLANATION: WE'RE OBJECTS IN SOME TRANSIENT FANTASY. WE'LL BE GONE WHEN IT ENDS!



OH GOD.

WE'LL LOSE EACH OTHER.

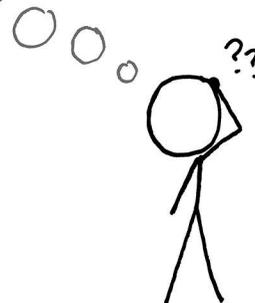
I guess if she accepted irrational realities, she'd hardly be my fantasy.

WELL, I'M NOT GOING OUT QUIETLY. I'M BURNING THIS FUCKING WORLD.

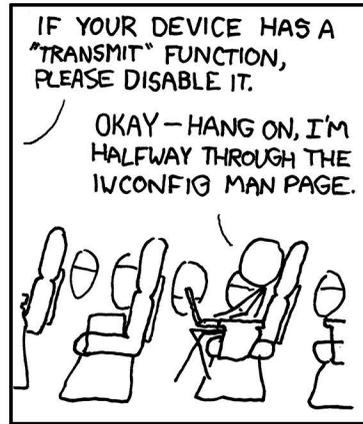
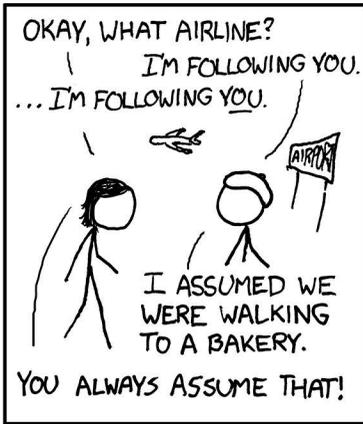


BURN THE WORLD!

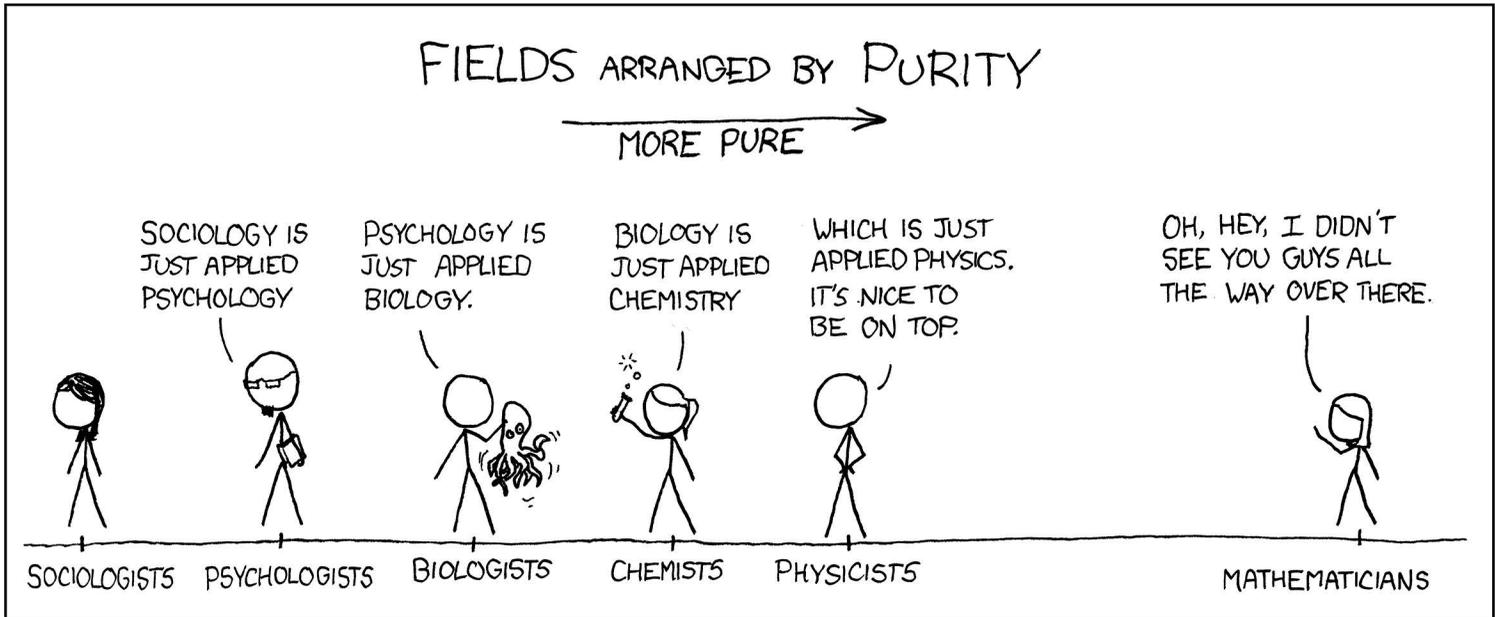
FIRE! FIRE! CLEANSE THIS HELLISH PLACE -



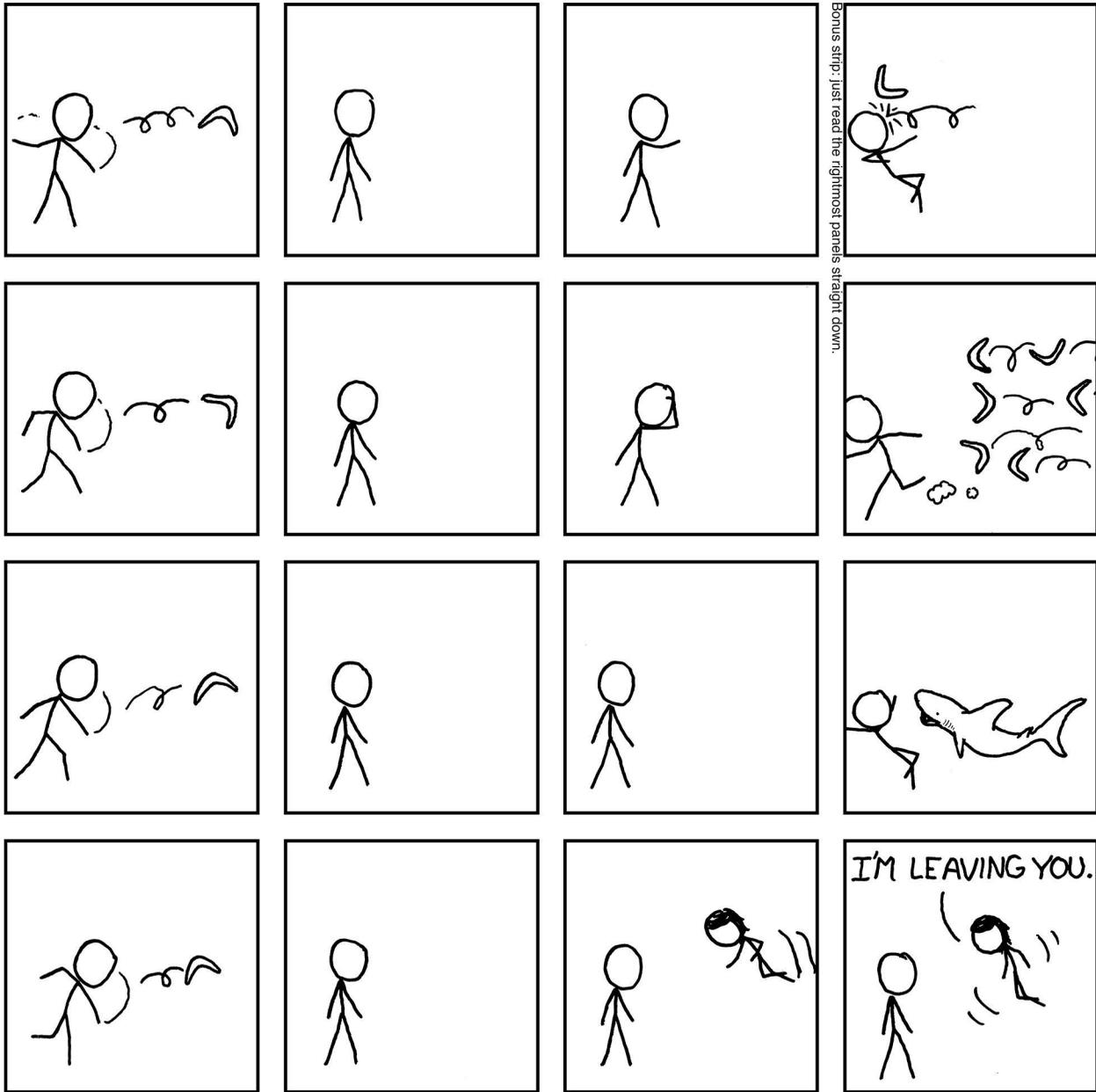
IF IT'S UNIMPORTANT ENOUGH TO  
BASICALLY WORK ON THE HONOR  
SYSTEM, IT'S NOT GONNA CRASH THE PLANE.



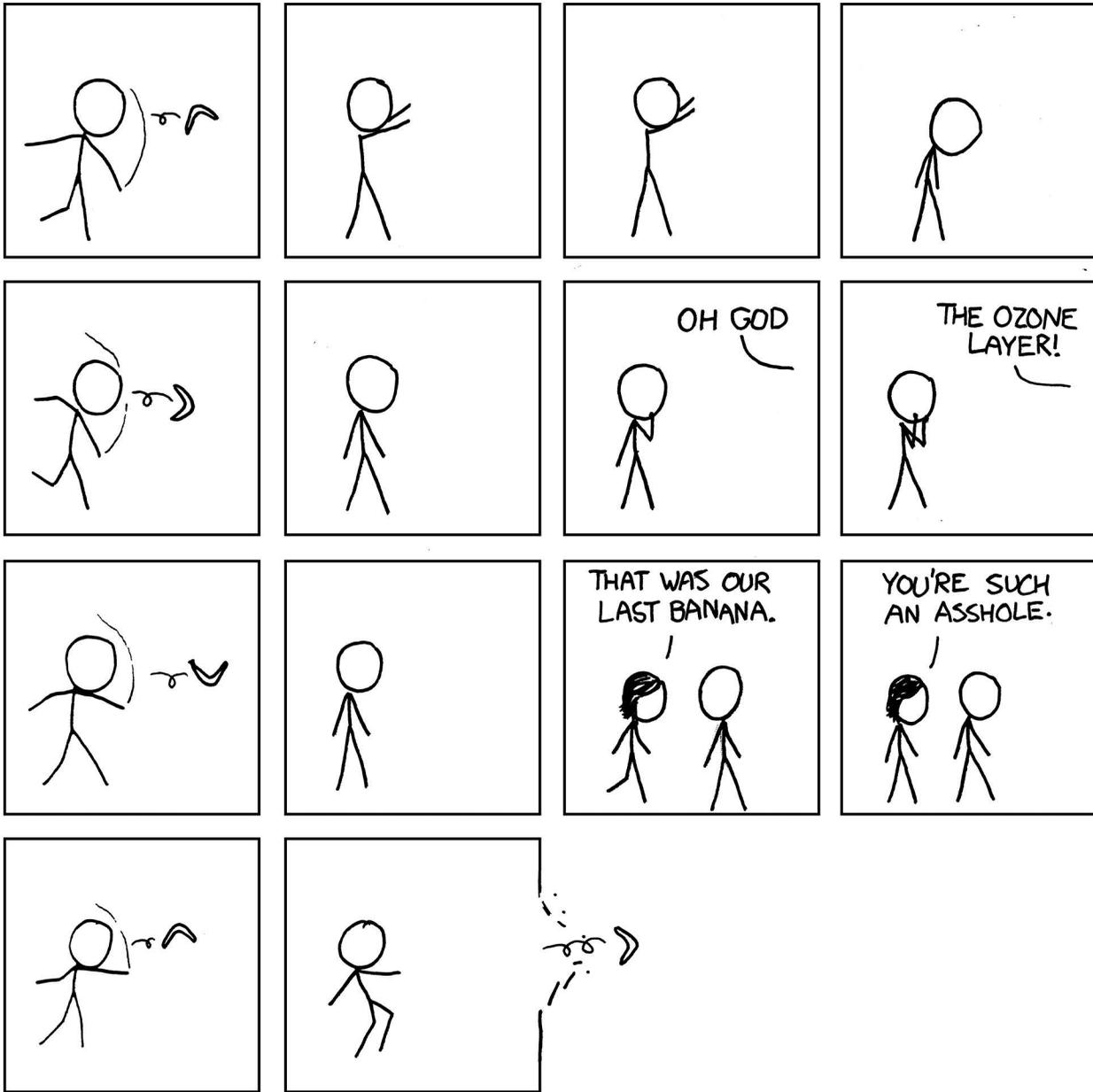
Under three ounces, but it stains parties.

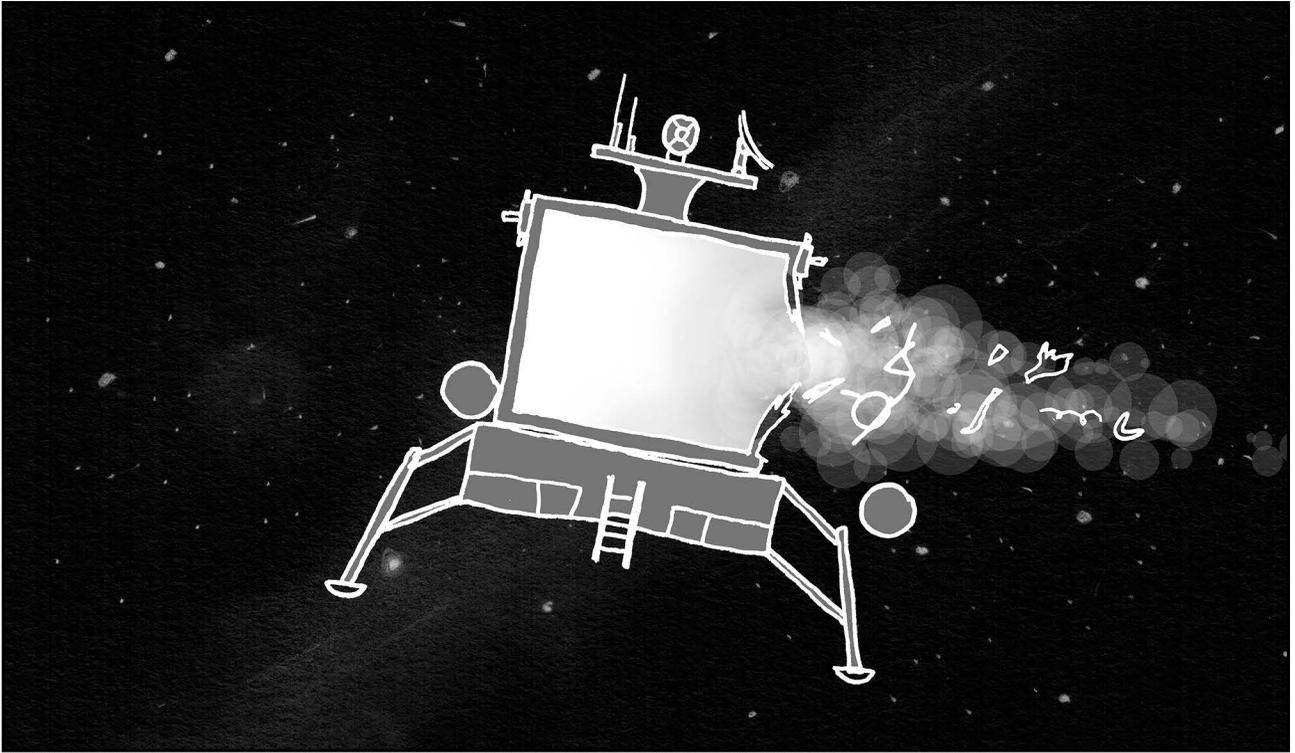


On the other hand, physicists like to say physics is to math as sex is to masturbation.



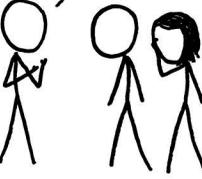
AS THE FORUMITES GLEEFULLY DISCOVERED,  
 YOU CAN MAKE ALL SORTS OF STORIES JUST  
 BY REARRANGING THESE PANELS.



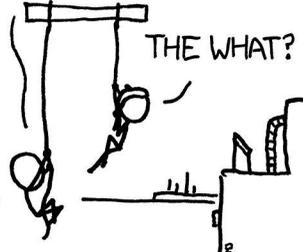
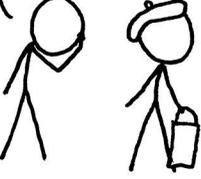
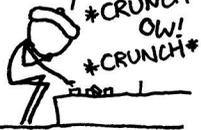


An eternity later, the universe having turned out to have positive curvature and lots of mass, the boomerang hits him in the back of the head.

MY HOBBY:  
SITTING DOWN WITH GRAD STUDENTS AND TIMING  
HOW LONG IT TAKES THEM TO FIGURE OUT THAT  
I'M NOT ACTUALLY AN EXPERT IN THEIR FIELD.

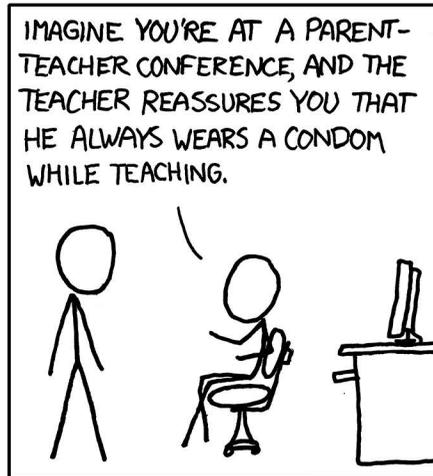
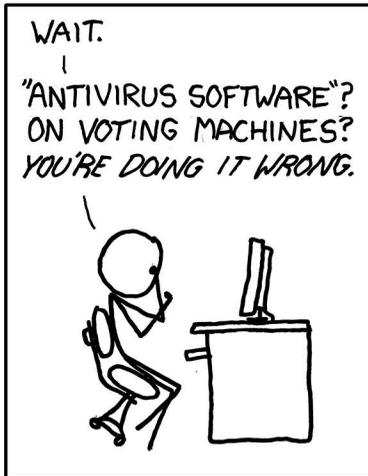
<p><b>ENGINEERING:</b></p> <p>OUR BIG PROBLEM IS HEAT DISSIPATION</p> <p>HAVE YOU TRIED LOGARITHMS?</p>  <p>48 SECONDS</p>	<p><b>LINGUISTICS:</b></p> <p>AH, SO DOES THIS FINNO-UGRIC FAMILY INCLUDE, SAY, KLINGON?</p>  <p>63 SECONDS</p>	<p><b>SOCIOLOGY:</b></p> <p>YEAH, MY LATEST WORK IS ON RANKING PEOPLE FROM BEST TO WORST.</p>  <p>4 MINUTES</p>	<p><b>LITERARY CRITICISM:</b></p> <p>YOU SEE, THE DECONSTRUCTION IS INEXTRICABLE FROM NOT ONLY THE TEXT, BUT ALSO THE SELF.</p>  <p>EIGHT PAPERS AND TWO BOOKS AND THEY HAVEN'T CAUGHT ON.</p>
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if you think I'm being too hard on literary criticism, read the Wikipedia article on deconstruction.

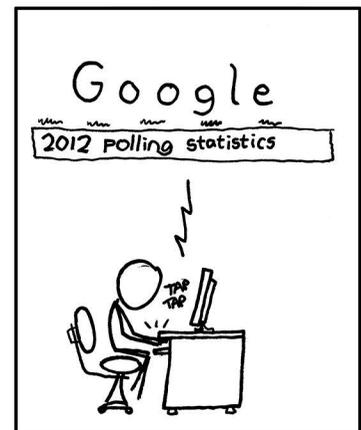
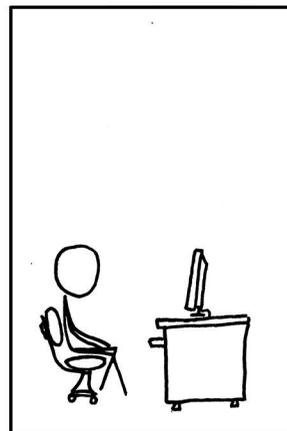
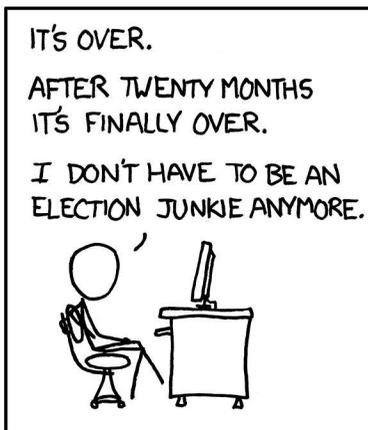
<p>OKAY, WE'RE IN THE BELLY OF THE MACHINE. YOU GOT THE CHARGES?</p>  <p>THE WHAT?</p>	<p>THE EXPLOSIVE CHARGES!</p> <p>I JUST BROUGHT THIS BAG FOR THE HELL? PASTRIES. WE'RE ON A MISSION HERE!</p> 	<p>THIS ISN'T A BAKERY?</p> <p>OH, CHRIST, NOT THIS SHIT AGAIN.</p> 	<p>WHAT ABOUT THESE SCONES?</p> <p>THOSE ARE LUG NUTS. ... MAYBE SOME OF THEM AREN'T!</p>  <p>*CRUNCH* Ow! *CRUNCH*</p>
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Don't you know? The chances of a random object being a scone are about one in six.

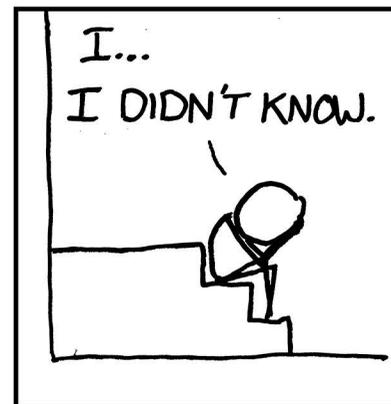
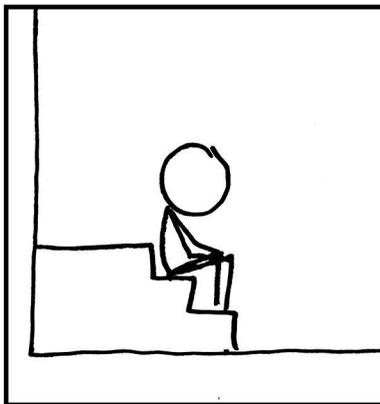
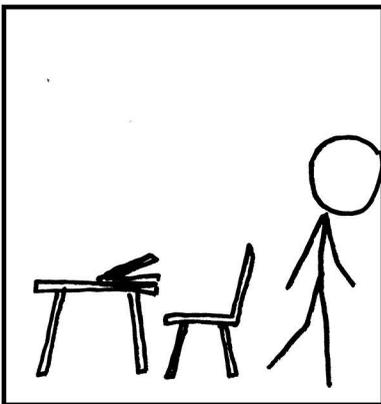
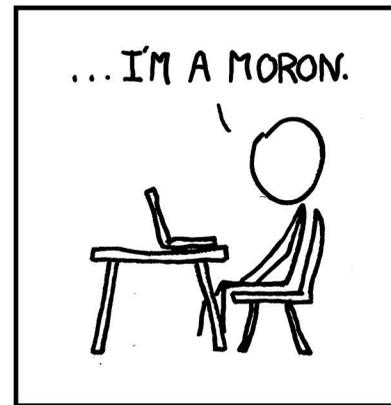
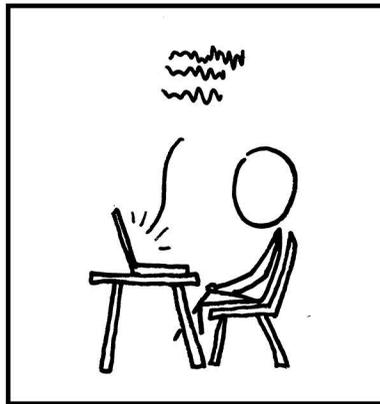
PREMIER ELECTION SOLUTIONS (FORMERLY DIEBOLD)  
HAS BLAMED OHIO VOTING MACHINE ERRORS ON PROBLEMS  
WITH THE MACHINES' MCAFEE ANTIVIRUS SOFTWARE.



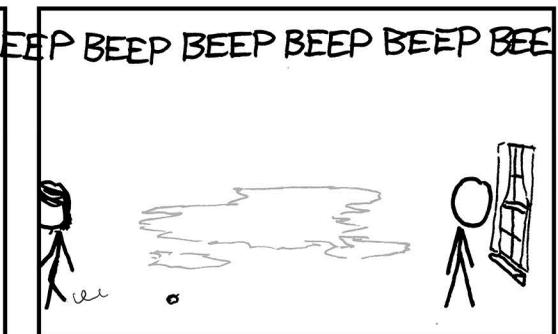
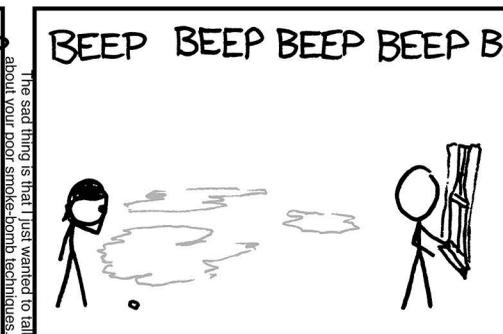
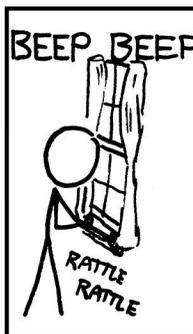
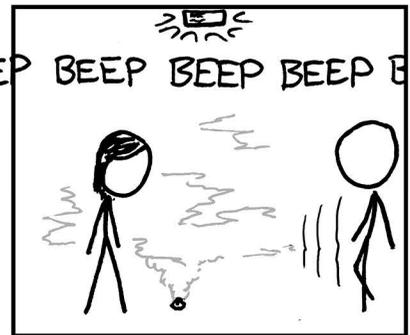
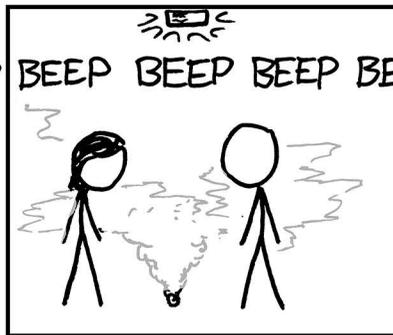
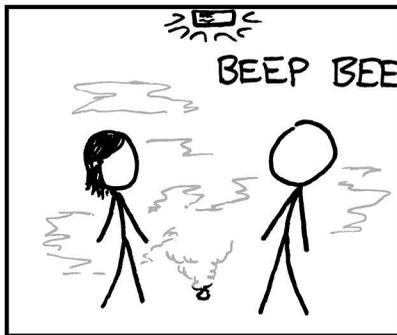
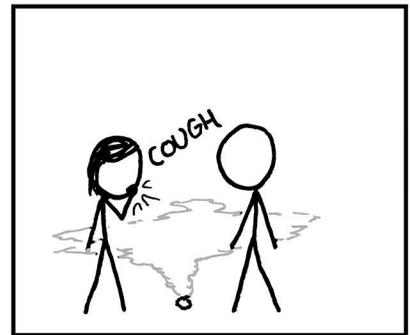
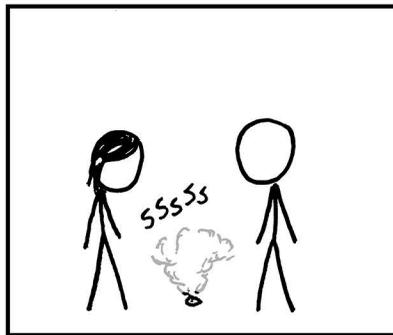
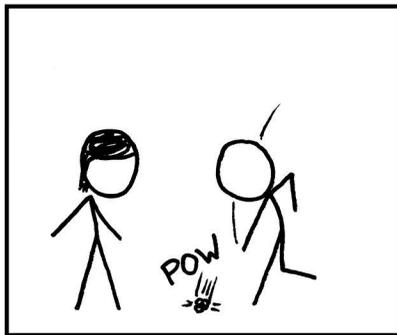
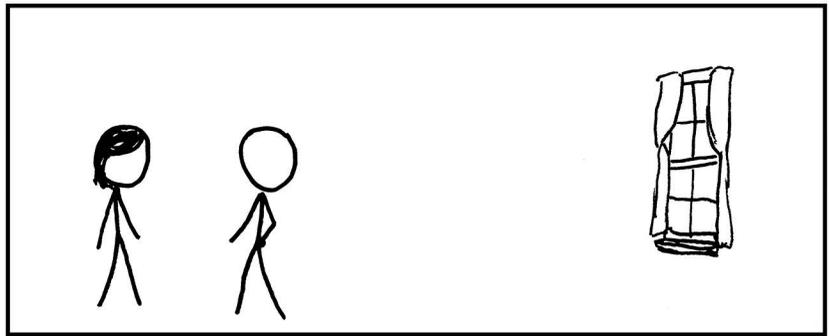
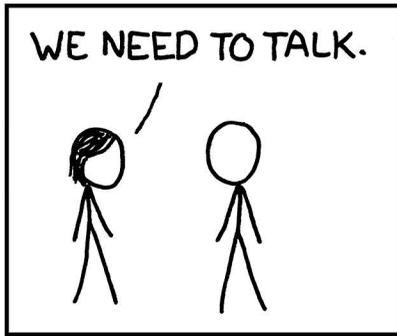
And that's "another" crypto conference I've been kicked out of. Ormion, it's a great analogy!



Someday I'll be rich enough to hire Nate Silver to help make all my life decisions.  
'Should I sleep with her?' 'Well, I'm showing a 35% chance it will end badly.'

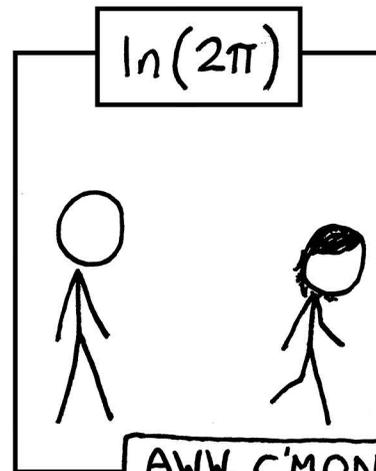
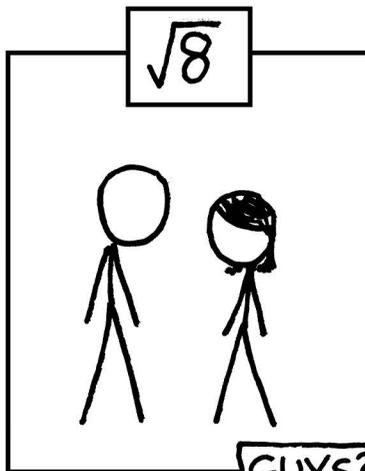
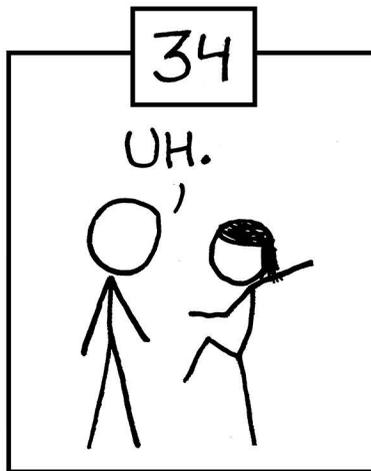
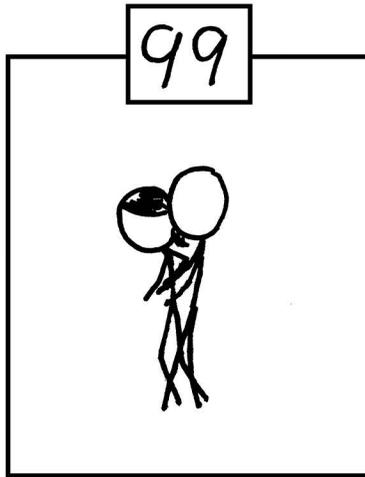
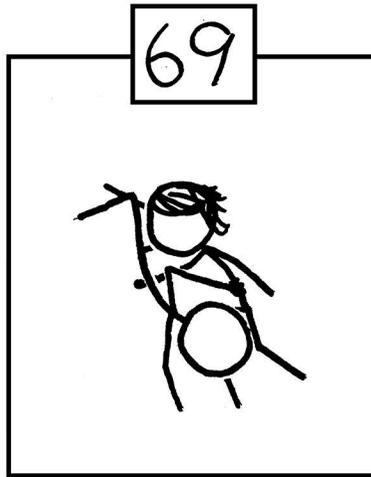


Man, I just wanted to know how baby was formed.



The sad thing is that I just wanted to talk about your poor smoke-droid loudness.

XKCD PRESENTS  
A GUIDE TO  
NUMERICAL SEX POSITIONS



We didn't even get to the continued fractions!

GUYS?

AWW, C'MON ...

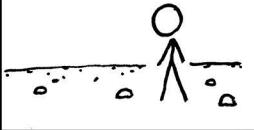
HEY, BABY, WANNA TRY  $\int_0^{\infty} t^{z-1} e^{-t} dt$ ING?

SO I'M STUCK IN THIS  
DESERT FOR ETERNITY.

I DON'T KNOW WHY.  
I JUST WOKE UP  
HERE ONE DAY.



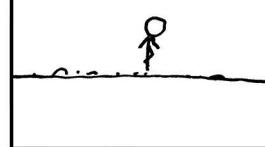
I NEVER FEEL  
HUNGRY OR  
THIRSTY.



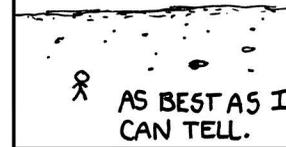
I JUST WALK.



SAND AND ROCKS



STRETCH TO INFINITY.



THERE'S PLENTY OF TIME  
FOR THINKING OUT HERE.



AN ETERNITY, REALLY.

I'VE REDERIVED  
MODERN MATH  
IN THE SAND



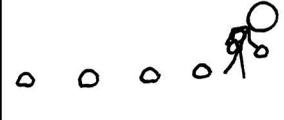
AND THEN SOME.

PHYSICS, TOO I WORKED OUT THE  
KINKS IN QUANTUM MECHANICS  
AND RELATIVITY.

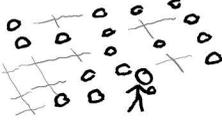


TOOK A LOT OF THINKING, BUT THIS  
PLACE HAS FEWER DISTRACTIONS THAN  
A SWISS PATENT OFFICE.

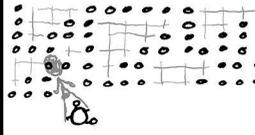
ONE DAY I STARTED  
LAYING DOWN ROWS OF  
ROCKS.



EACH NEW ROW  
FOLLOWED FROM  
THE LAST IN A  
SIMPLE PATTERN.



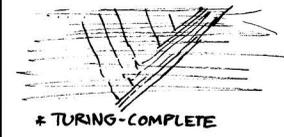
WITH THE RIGHT  
SET OF RULES AND  
ENOUGH SPACE,



I WAS ABLE TO  
BUILD A COMPUTER.

EACH NEW ROW OF  
STONES IS THE NEXT  
ITERATION OF THE  
COMPUTATION.

SURE, IT'S ROCKS  
INSTEAD OF ELECTRICITY,  
BUT IT'S THE SAME\*  
THING. JUST SLOWER.



AFTER A WHILE, I  
PROGRAMMED IT TO  
BE A PHYSICS SIMU-  
LATOR.



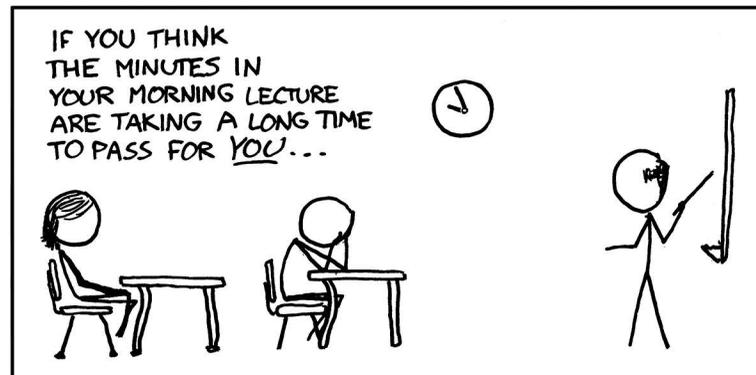
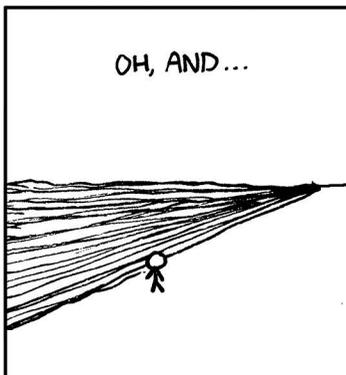
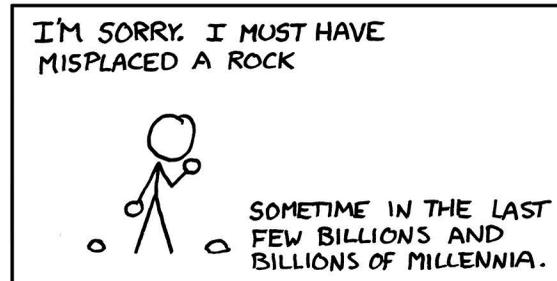
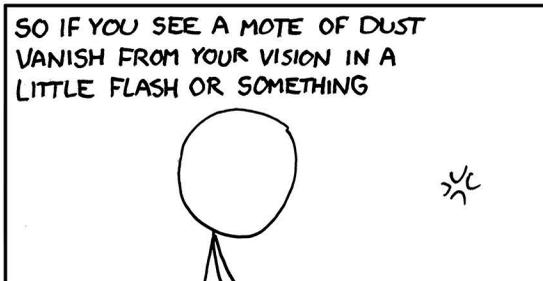
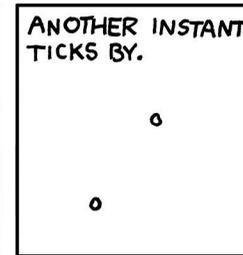
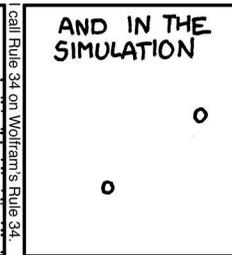
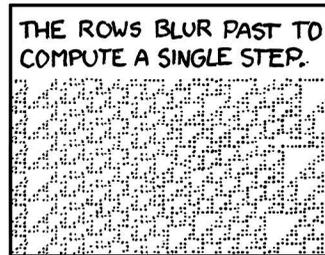
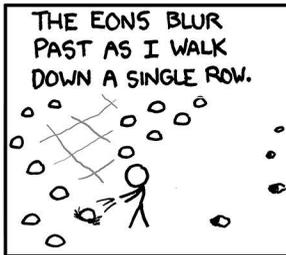
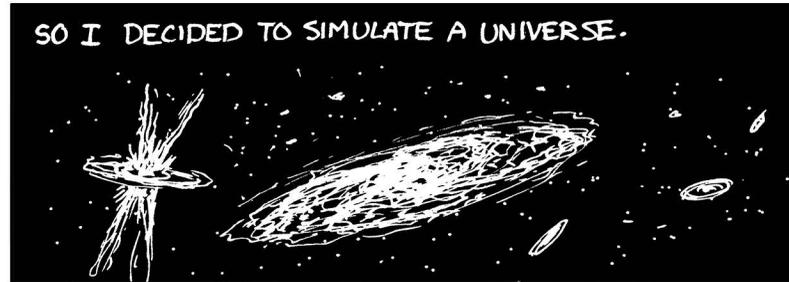
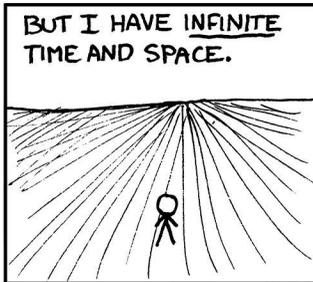
EVERY PIECE OF  
INFORMATION ABOUT  
A PARTICLE WAS  
ENCODED AS A STRING  
OF BITS WRITTEN  
IN THE STONES.



WITH ENOUGH TIME AND  
SPACE, I COULD FULLY  
SIMULATE TWO  
PARTICLES INTERACTING.

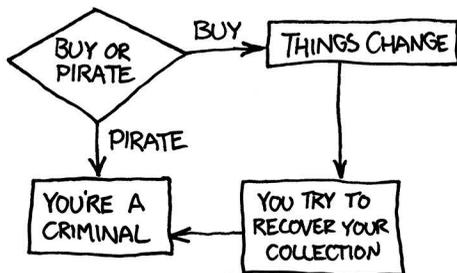
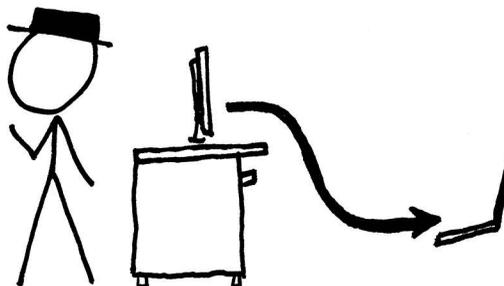


THINGS SIMULATED IN STONES IN THE DESERT ARE EXACTLY AS REAL AS THINGS SIMULATED IN SILICON ON YOUR COMPUTER,



THINKING OF BUYING FROM  
AUDIBLE.COM OR iTUNES?

REMEMBER, IF YOU PIRATE  
SOMETHING, IT'S YOURS FOR LIFE.  
YOU CAN TAKE IT ANYWHERE  
AND IT WILL ALWAYS WORK.



BUT IF YOU BUY DRM-LOCKED MEDIA,  
AND YOU EVER SWITCH OPERATING SYSTEMS  
OR NEW TECHNOLOGY COMES ALONG,  
YOUR COLLECTION COULD BE LOST.

AND IF YOU TRY TO KEEP IT, YOU'LL  
BE A CRIMINAL (DMCA 1201).

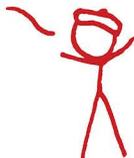
SO REMEMBER: IF YOU WANT A COLLECTION  
YOU CAN COUNT ON, PIRATE IT.

HEY, YOU'LL BE A CRIMINAL EITHER WAY.



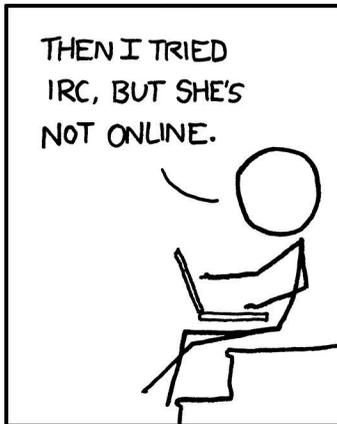
(IF YOU DON'T LIKE THIS, DEMAND DRM-FREE FILES)

HEY, TURNS OUT WE WON THIS ONE!  
GOOD JOB, ALL! PARTY AT MY PLACE?

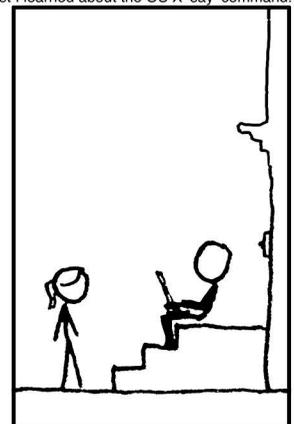
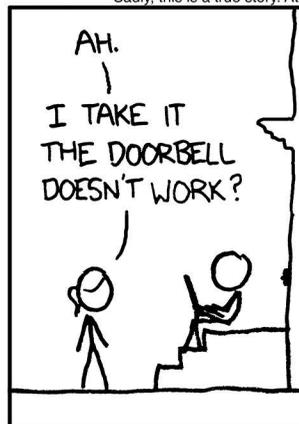
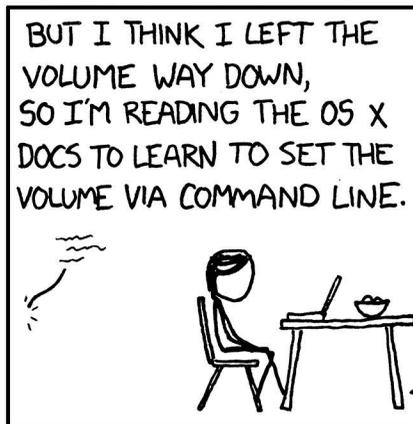


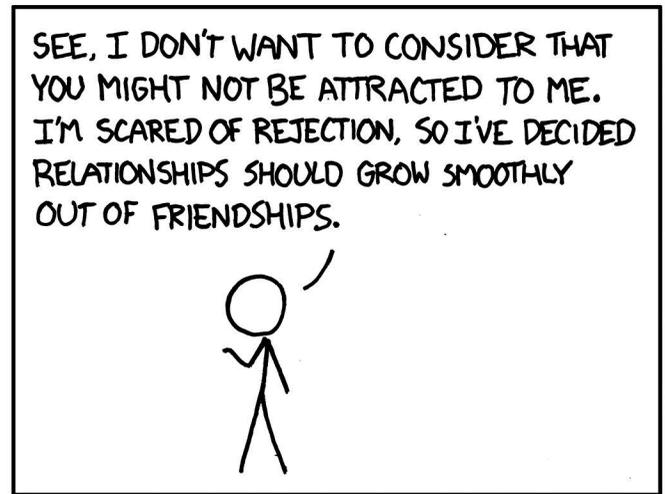
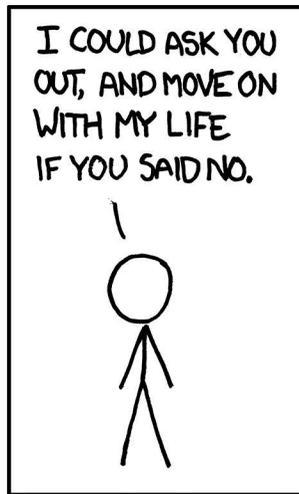
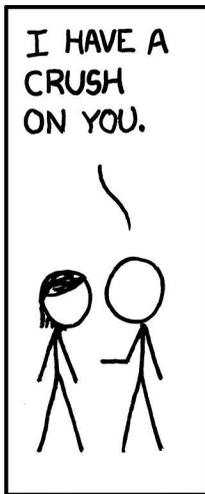


I mean, I can barely hear myself complaining about Battlestar Galactica.

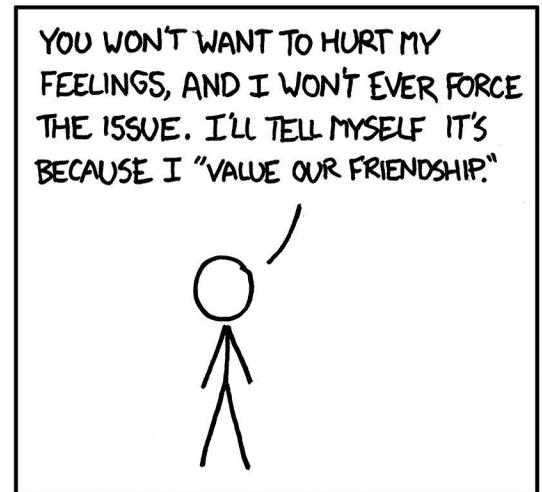
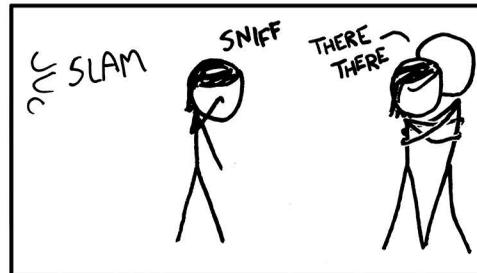


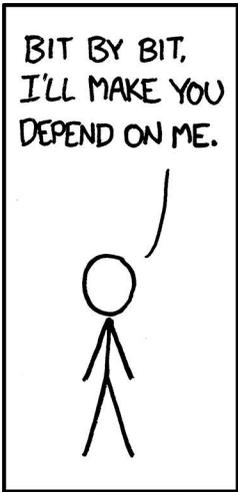
Sadly, this is a true story. At least I learned about the OS X 'say' command.



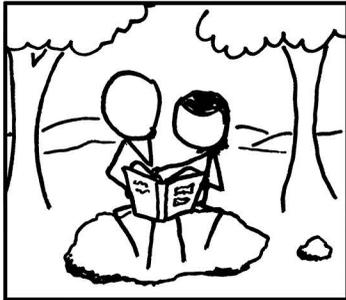


I'LL TEAR DOWN THE JERKS YOU DATE, AND WAIT FOR YOU TO REALIZE HOW GOOD I AM FOR YOU. THAT ONLY I WILL EVER UNDERSTAND YOU.





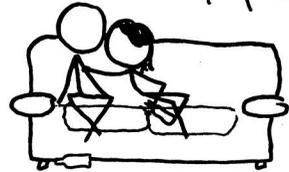
YOU'LL THINK ABOUT HOW  
LONG IT WOULD TAKE TO  
BUILD THIS KIND OF  
CONNECTION AGAIN.



AND IN A MOMENT  
OF WEAKNESS



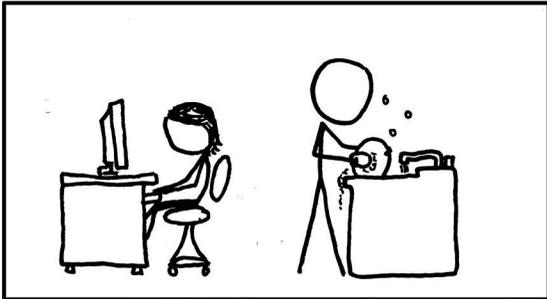
AND LONELINESS



YOU'LL GIVE IN.



IT'LL FEEL COMFORTABLE AND NATURAL.  
YOU'LL QUIETLY REVISE YOUR DEFINITION  
OF LOVE AND TRY TO BE HAPPY.  
AND SOMETIMES YOU WILL BE.

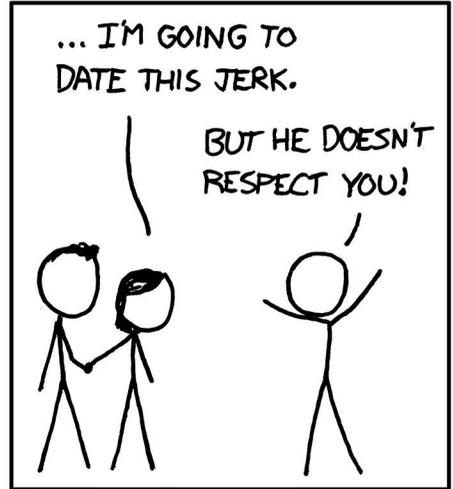


Friends with detriments.

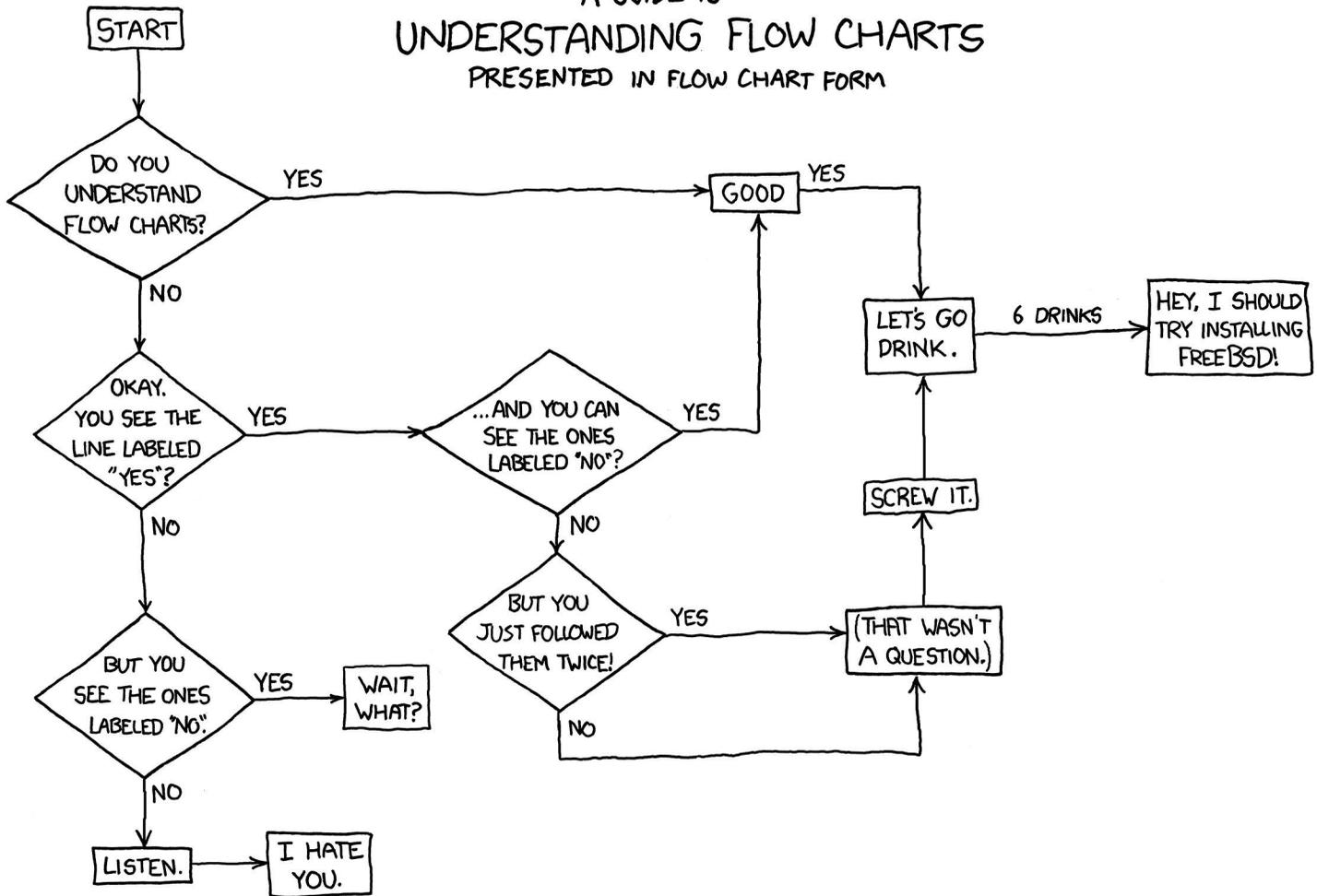
ONLY THE WISTFULNESS IN  
YOUR GAZE AND THE TINY PAUSE  
BEFORE YOU SAY "I LOVE YOU"  
WILL HINT THAT THIS WASN'T  
THE ENDING YOU'D HOPED FOR.



SOUND  
GOOD?

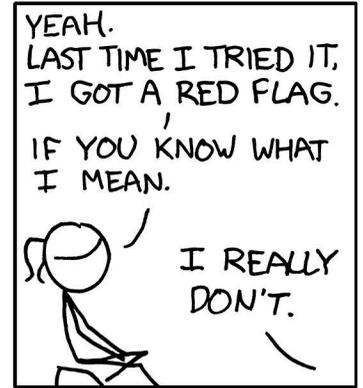
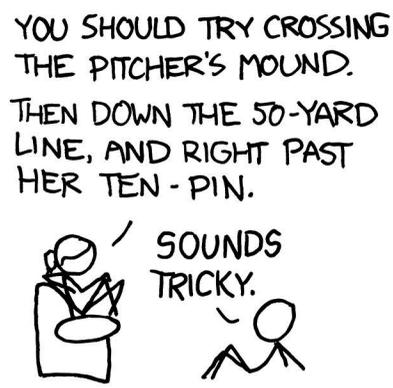
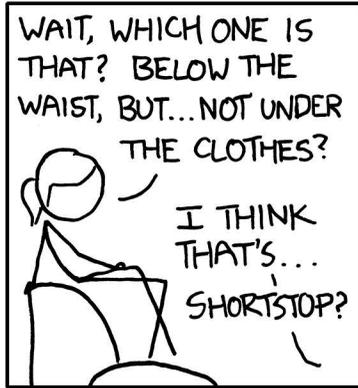
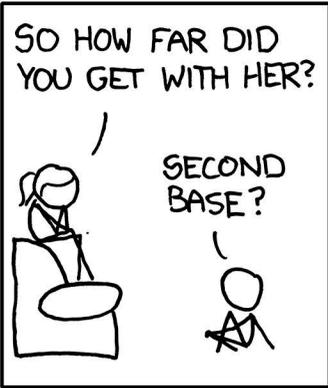


# A GUIDE TO UNDERSTANDING FLOW CHARTS PRESENTED IN FLOW CHART FORM

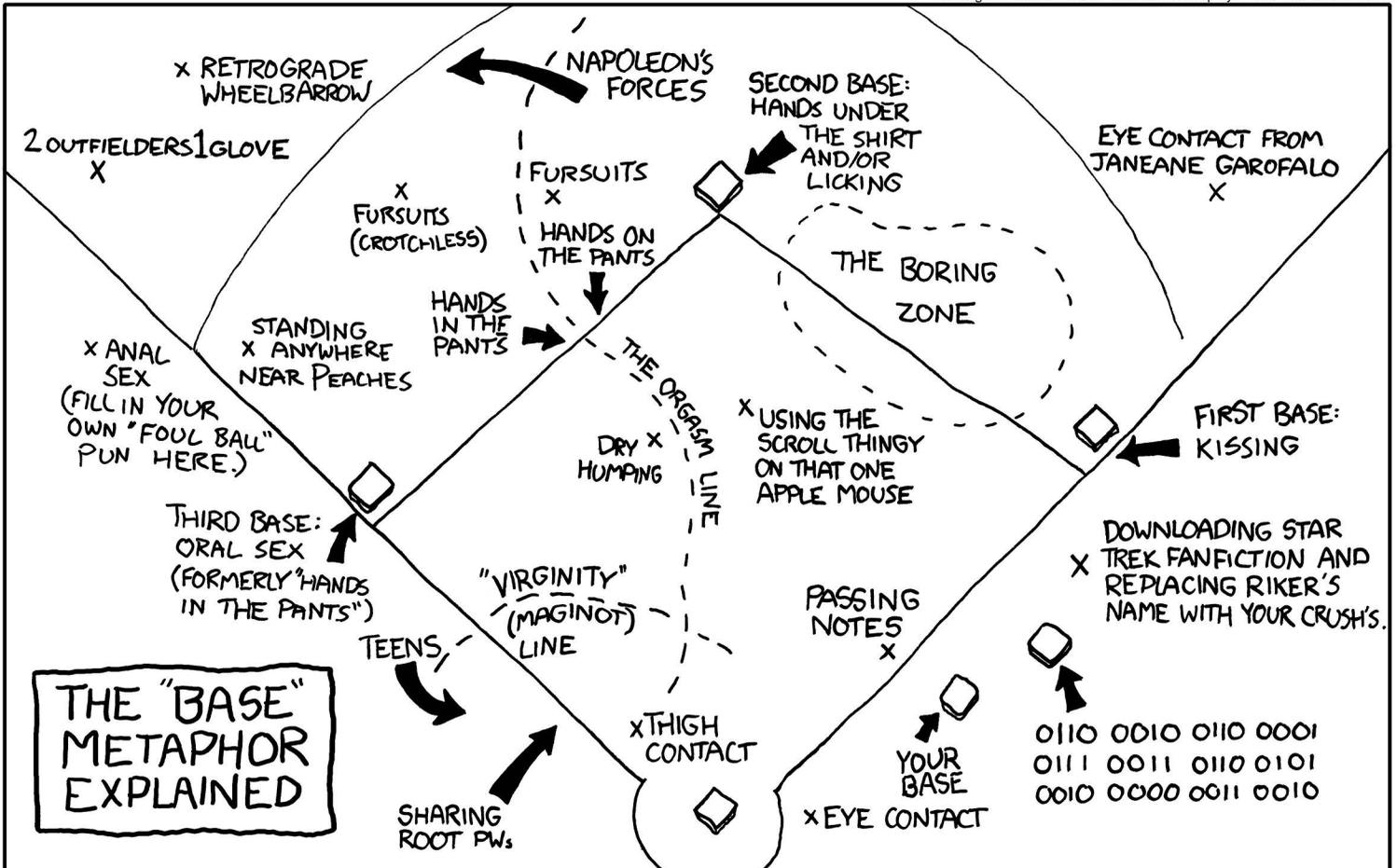


At 8 drinks, you switch the torrent from FreeBSD to Microsoft Bob. C'mon, it'll be fun!

MORE DRINKING



I once got to second base with a basketball player. She was so confused.



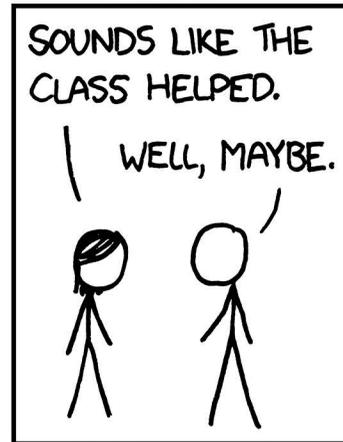
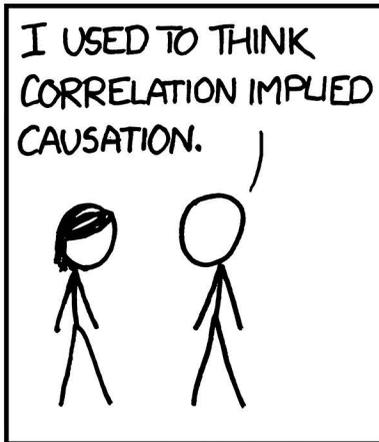


Eventually a UN is set up. And then a lone rebel runs down the line of flags in front of it, runs back to his base, and gets a kajillion points.



et's invite him to a party and play 'I never', 'Okay, I never' hid  
any bodies SOUTH of Main Street. ... he's taking a drink!



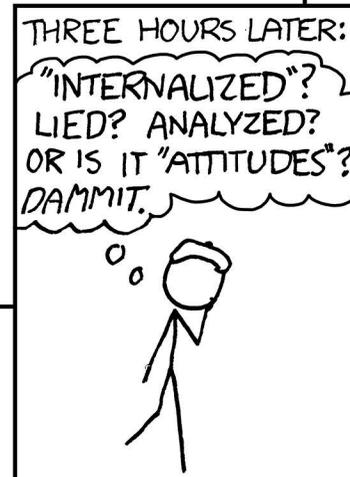
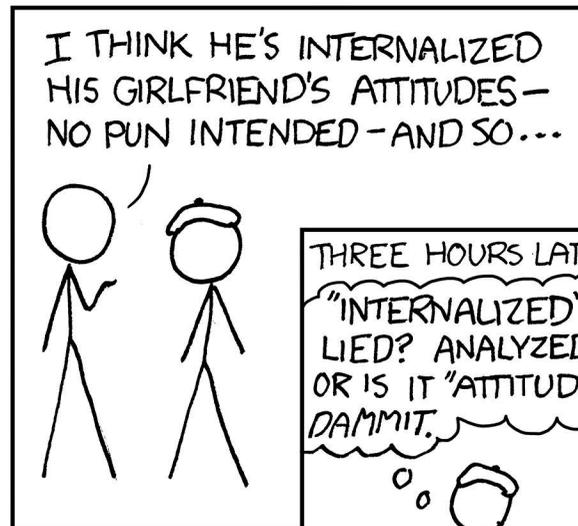


Correlation doesn't imply causation, but it does waggle its eyebrows suggestively and gesture furtively while mouthing 'look over there'.

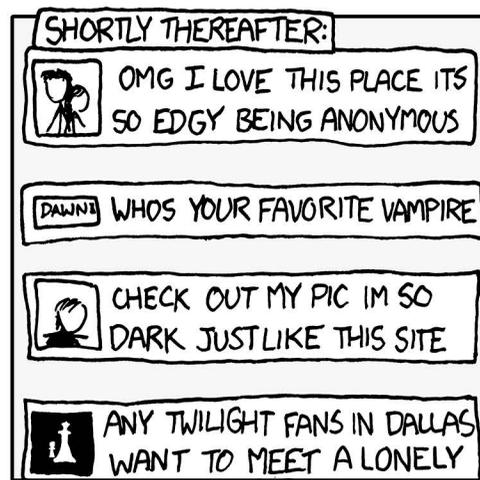
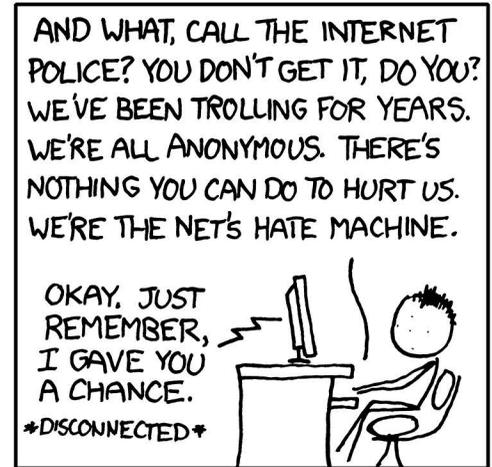
THE START OF THE TENTH-FAVORITE WORD USED BY BENDER  
THE TOON THAT WENT SOUTH WHILE COMMANDED BY ENDER  
THE NUMBER OF LIGHTS THAT PICARD SAID WERE ON  
AND THE CLASS OF THE PLANET WHERE KIRK SHOUTED "KHAANI!"  
THE RINGS FOR THE MEN MINUS RINGS FOR THE ELVES  
AND THE PRODUCT MOD TEN OF A FIVESOME OF TWELVES  
THE END OF A CODE NES GAMERS KNOW  
AND THE BASE USED TO MODEL HOW QUICKLY THINGS GROW  
WHEN THEY'RE XOR'D TOGETHER THE CHECKSUM IS "E"  
WHICH WILL TELL YOU YOU'VE GOT THE PENULTIMATE KEY

## MY HOBBY:

APPENDING "NO PUN INTENDED"  
TO LINES WITH NO PUN IN THEM.

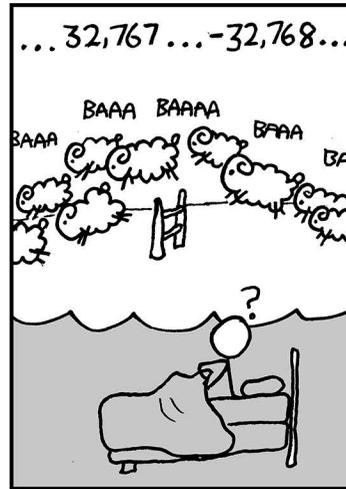
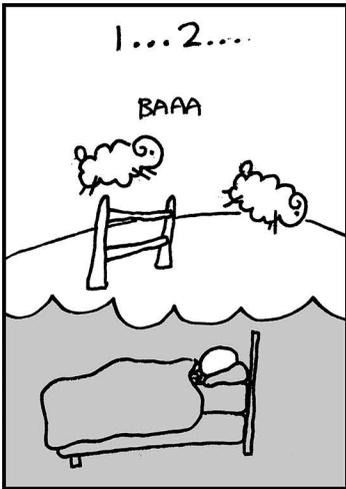


Like spelling 'dammit' correctly -- with two m's -- it's a troll that works best on the most literate.

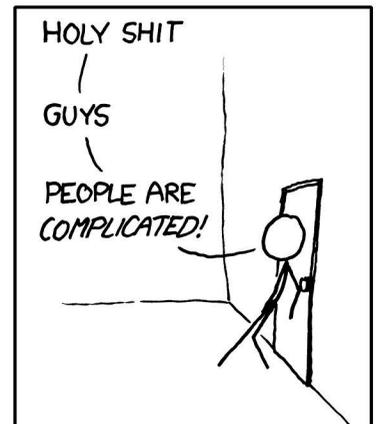


We have met the enemy and he is us.

SOME 4CHANNERS WROTE IN TO COMPLAIN THAT I WAS BREAKING RULES 1 AND 2. SOME 4CHANNERS ARE A LITTLE SLOW ON THE UPTAKE.



If androids someday DO dream of electric sheep, don't forget to declare sheepCount as a long int.

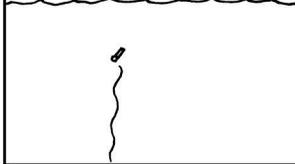


This happens in geek circles every so often. The 'Hey, this is just a system I can figure out easily!' is also a problem among engineers first diving into the stock market.

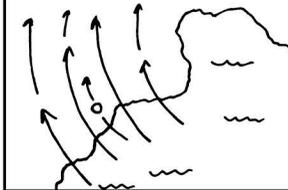
THE TRACKING TAG WILL RECORD THE SHARK'S MOVEMENT AND HABITS.



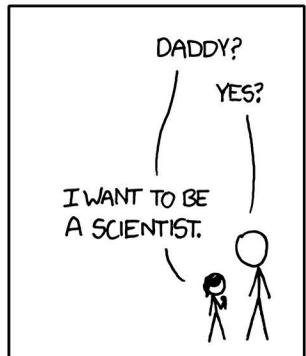
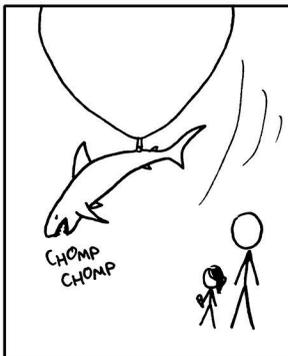
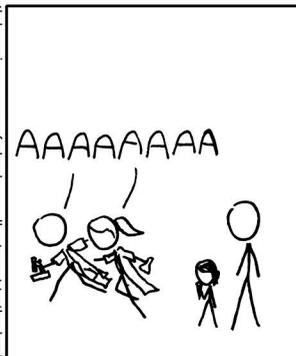
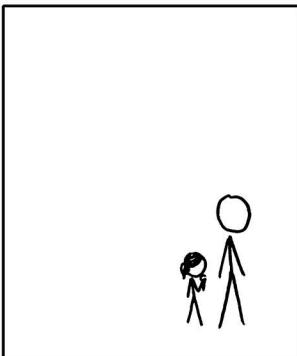
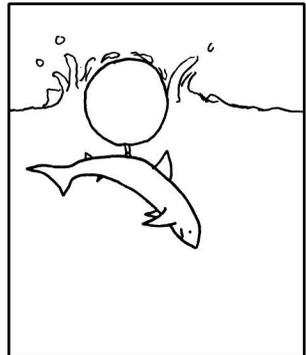
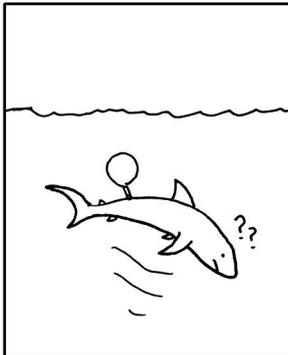
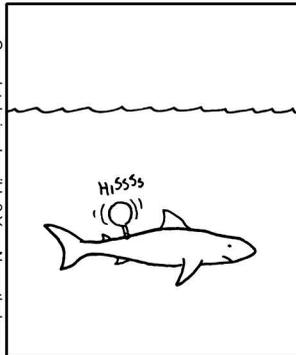
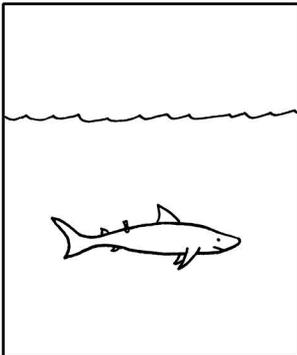
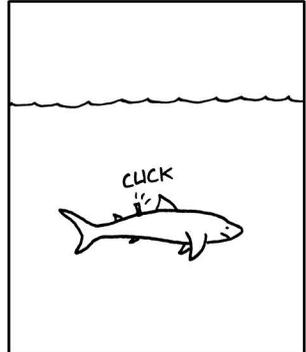
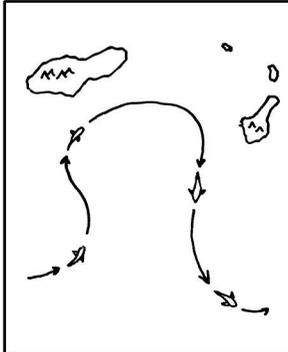
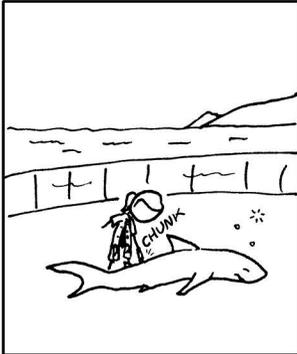
THEN, IT WILL POP FREE AND FLOAT TO THE SURFACE.



WE CAN'T AFFORD A RECOVERY PROGRAM, SO THE CAPSULES WILL INFLATE HELIUM BALLOONS, DRIFT OVER LAND,



AND HOPEFULLY BE FOUND AND MAILED TO US. ANY QUESTIONS?



Completely implausible? Yes. Nevertheless, worth keeping a can of shark repellent next to the bed.

