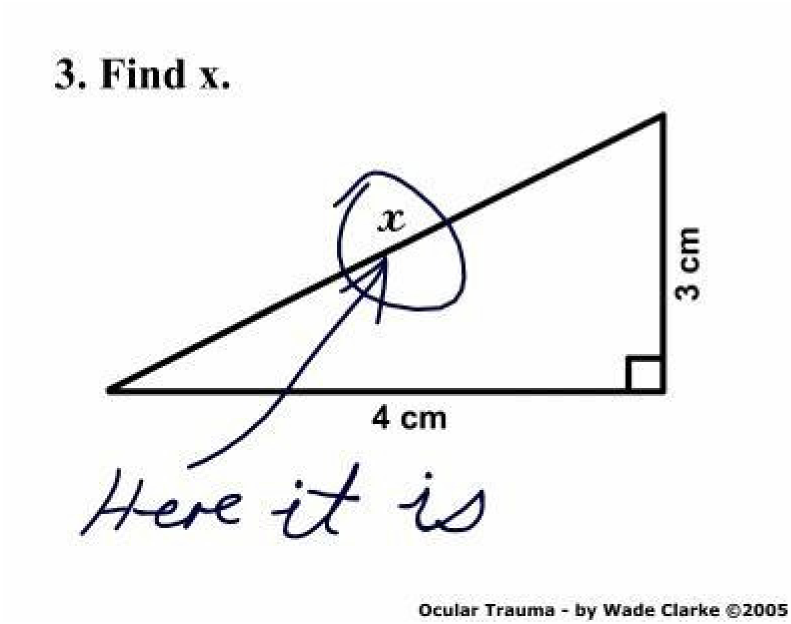
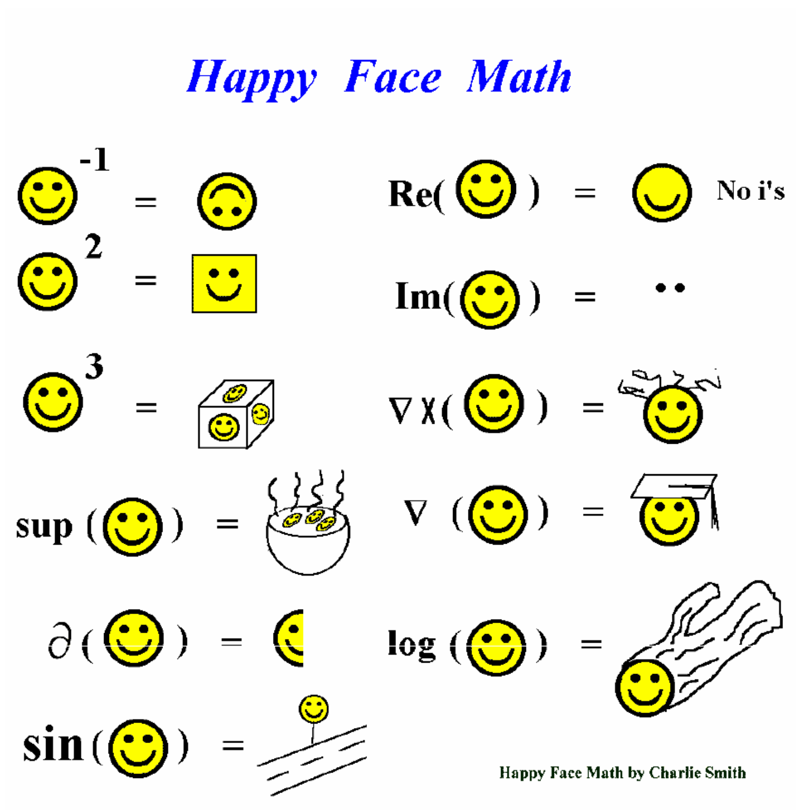
Funny Math proof & math jokes


3. Find x.
x
3 cm
4 cm
Here it is
Ocular Trauma - by Wade Clarke ©2005


Happy Face Math
-1
=
2
=
3
=
sup (
)
=
∂ (
)
=
sin (
)
=
Re(
)
=
No i's
Im(
)
=
∇ X (
)
=
∇ (
)
=
log (
)
=
Happy Face Math by Charlie Smith

Three is equal to four

Theorem: 3=4
Proof:

Suppose:
a + b = c

This can also be written as:
4a - 3a + 4b - 3b = 4c - 3c

After reorganizing:
4a + 4b - 4c = 3a + 3b - 3c

Take the constants out of the brackets:
4 * (a+b-c) = 3 * (a+b-c)

Remove the same term left and right:
4 = 3

Dollars equal ten cents

Theorem: 1$ = 10 cent

Proof:
We know that $1 = 100 cents

Divide both sides by 100
$ 1/100 = 100/100 cents
=> $ 1/100 = 1 cent

Take square root both side
=> squr($1/100) = squr (1 cent)
=> $ 1/10 = 1 cent

Multiply both side by 10
=> $1 = 10 cent

One plus one are two

Theorem: 1 + 1 = 2
Proof:
n(2n - 2) = n(2n - 2)
n(2n - 2) - n(2n - 2) = 0
(n - n)(2n - 2) = 0
2n(n - n) - 2(n - n) = 0
2n - 2 = 0
2n = 2
n + n = 2
or setting n = 1
1 + 1 = 2

All numbers are equal

Theorem: All numbers are equal.
Proof: Choose arbitrary a and b, and let t = a + b. Then

a + b = t
(a + b)(a - b) = t(a - b)
a^2 - b^2 = ta - tb
a^2 - ta = b^2 - tb
a^2 - ta + (t^2)/4 = b^2 - tb + (t^2)/4
(a - t/2)^2 = (b - t/2)^2
a - t/2 = b - t/2
a = b

So all numbers are the same, and math is pointless.

Log negative one zero

Theorem: log(-1) = 0
Proof:
a. log[(-1)^2] = 2 * log(-1)

On the other hand:
b. log[(-1)^2] = log(1) = 0

Combining a) and b) gives:
2* log(-1) = 0
Divide both sides by 2:
log(-1) = 0

One equal to one half

Theorem: 1 = 1/2:
Proof:

We can re-write the infinite series 1/(1*3) + 1/(3*5) + 1/(5*7) + 1/(7*9) +...

as 1/2((1/1 - 1/3) + (1/3 - 1/5) + (1/5 - 1/7) + (1/7 - 1/9) + ...).
All terms after 1/1 cancel, so that the sum is 1/2.

We can also re-write the series as (1/1 - 2/3) + (2/3 - 3/5) + (3/5 - 4/7) + (4/7 - 5/9) + ...

All terms after 1/1 cancel, so that the sum is 1.

Thus 1/2 = 1.

Numbers equal zero

Theorem : All numbers are equal to zero.

Proof: Suppose that a=b. Then
a = b
a^2 = ab
a^2 - b^2 = ab - b^2
(a + b)(a - b) = b(a - b)
a + b = b
a = 0

Furthermore if a + b = b,and a = b,then b + b = b,and 2b = b, which mean that 2 = 1.

Dollars equal cents

Theorem: 1$ = 1c.
Proof:
And another that gives you a sense of money disappearing.

1$ = 100c
= (10c)^2
= (0.1$)^2
= 0.01$
= 1c

Here $ means dollars and c means cents. This one is scary in that I have seen PhD's in math who were unable to see what was wrong with this one. Actually I am crossposting this to sci.physics because I think that the latter makes a very nice introduction to the importance of keeping track of your dimensions.

N equals N plus one

Theorem: n=n+1

Proof:
(n+1)^2 = n^2 + 2*n + 1

Bring 2n+1 to the left:
(n+1)^2 - (2n+1) = n^2

Substract n(2n+1) from both sides and factoring, we have:
(n+1)^2 - (n+1)(2n+1) = n^2 - n(2n+1)

Adding 1/4(2n+1)^2 to both sides yields:
(n+1)^2 - (n+1)(2n+1) + 1/4(2n+1)^2 = n^2 - n(2n+1) + 1/4(2n+1)^2

This may be written:
[(n+1) - 1/2(2n+1)]^2 = [n - 1/2(2n+1)]^2

Taking the square roots of both sides:
(n+1) - 1/2(2n+1) = n - 1/2(2n+1)

Add 1/2(2n+1) to both sides:
n+1 = n

Four is equal to five

Theorem: 4 = 5
Proof:
-20 = -20
16 - 36 = 25 - 45
4^2 - 9*4 = 5^2 - 9*5
4^2 - 9*4 + 81/4 = 5^2 - 9*5 + 81/4
(4 - 9/2)^2 = (5 - 9/2)^2
4 - 9/2 = 5 - 9/2
4 = 5

Two plus two is five

"First and above all he was a logician. At least thirty-five years of the half-century or so of his existence had been devoted exclusively to proving that two and two always equal four, except in unusual cases, where they equal three or five, as the case may be." -- Jacques Futrelle, "The Problem of Cell 13"

Most mathematicians are familiar with -- or have at least seen references in the literature to -- the equation 2 + 2 = 4. However, the less well known equation 2 + 2 = 5 also has a rich, complex history behind it. Like any other complex quantitiy, this history has a real part and an imaginary part; we shall deal exclusively with the latter here.

Many cultures, in their early mathematical development, discovered the equation 2 + 2 = 5. For example, consider the Bolb tribe, descended from the Incas of South America. The Bolbs counted by tying knots in ropes. They quickly realized that when a 2-knot rope is put together with another 2-knot rope, a 5-knot rope results.

Recent findings indicate that the Pythagorean Brotherhood discovered a proof that 2 + 2 = 5, but the proof never got written up. Contrary to what one might expect, the proof's nonappearance was not caused by a cover-up such as the Pythagoreans attempted with the irrationality of the square root of two. Rather, they simply could not pay for the necessary scribe service. They had lost their grant money due to the protests of an oxen-rights activist who objected to the Brotherhood's method of celebrating the discovery of theorems. Thus it was that only the equation 2 + 2 = 4 was used in Euclid's "Elements," and nothing more was heard of 2 + 2 = 5 for several centuries.

Around A.D. 1200 Leonardo of Pisa (Fibonacci) discovered that a few weeks after putting 2 male rabbits plus 2 female rabbits in the same cage, he ended up with considerably more than 4 rabbits. Fearing that too strong a challenge to the value 4 given in Euclid would meet with opposition, Leonardo conservatively stated, "2 + 2 is more like 5 than 4." Even this cautious rendition of his data was roundly condemned and earned Leonardo the nickname "Blockhead." By the way, his practice of underestimating the number of rabbits persisted; his celebrated model of rabbit populations had each birth consisting of only two babies, a gross underestimate if ever there was one.

Some 400 years later, the thread was picked up once more, this time by the French mathematicians. Descartes announced, "I think 2 + 2 = 5; therefore it does." However, others objected that his argument was somewhat less than totally rigorous. Apparently, Fermat had a more rigorous proof which was to appear as part of a book, but it and other material were cut by the editor so that the book could be printed with wider margins.

Between the fact that no definitive proof of 2 + 2 = 5 was available and the excitement of the development of calculus, by 1700 mathematicians had again lost interest in the equation. In fact, the only known 18th-century reference to 2 + 2 = 5 is due to the philosopher Bishop Berkeley who, upon discovering it in an old manuscript, wryly commented, "Well, now I know where all the departed quantities went to -- the right-hand side of this equation." That witticism so impressed California intellectuals that they named a university town after him.

But in the early to middle 1800's, 2 + 2 began to take on great significance. Riemann developed an arithmetic in which 2 + 2 = 5, paralleling the Euclidean 2 + 2 = 4 arithmetic. Moreover, during this period Gauss produced an arithmetic in which 2 + 2 = 3. Naturally, there ensued decades of great confusion as to the actual value of 2 + 2. Because of changing opinions on this topic, Kempe's proof in 1880 of the 4-color theorem was deemed 11 years later to yield, instead, the 5-color theorem. Dedekind entered the debate with an article entitled "Was ist und was soll 2 + 2?"

Frege thought he had settled the question while preparing a condensed version of his "Begriffsschrift." This condensation, entitled "Die Kleine Begriffsschrift (The Short Schrift)," contained what he considered to be a definitive proof of 2 + 2 = 5. But then Frege received a letter from Bertrand Russell, reminding him that in "Grundbeefen der Mathematik" Frege had proved that 2 + 2 = 4. This contradiction so discouraged Frege that he abandoned mathematics altogether and went into university administration.

Faced with this profound and bewildering foundational question of the value of 2 + 2, mathematicians followed the reasonable course of action: they just ignored the whole thing. And so everyone reverted to 2 + 2 = 4 with nothing being done with its rival equation during the 20th century. There had been rumors that Bourbaki was planning to devote a volume to 2 + 2 = 5 (the first forty pages taken up by the symbolic expression for the number five), but those rumor remained unconfirmed. Recently, though, there have been reported computer-assisted proofs that 2 + 2 = 5, typically involving computers belonging to utility companies. Perhaps the 21st century will see yet another revival of this historic equation.

The above was written by Houston Euler.

The birthday study

It is proven that the celebration of birthdays is healthy. Statistics show that those people who celebrate the most birthdays become the oldest. -- S. den Hartog, Ph D. Thesis Universtity of Groningen.

The results of statistics

1. Ten percent of all car thieves are left-handed
   2. All polar bears are left-handed
   3. If your car is stolen, there's a 10 percent chance it was taken by a Polar bear

   1. 39 percent of unemployed men wear spectacles
   2. 80 percent of employed men wear spectacles
   3. Work stuffs up your eyesight

   1. All dogs are animals
   2. All cats are animals
   3. Therefore, all dogs are cats

   1. A total of 4000 cans are opened around the world every second
   2. Ten babies are conceived around the world every second
   3. Each time you open a can, you stand a 1 in 400 chance of becoming pregnant

Risk of plane bombs

A mathematician and a non-mathematician are sitting in an airport hall waiting for their flight to go. The non has terrible flight panic.

"Hey, don't worry, it's just every 10000th flight that crashes."

"1:10000? So much? Then it surely will be mine!"

"Well, there is an easy way out. Simply take the next plane. It's much more probable that you go from a crashing to a non-crashing plane than the other way round. So you are already at 1:10000 squared."

Statistical one-liners

A new government 10 year survey cost $3,000,000,000 revealed that 3/4 of the people in America make up 75% of the population.

According to recent surveys, 51% of the people are in the majority.

Did you know that 87.166253% of all statistics claim a precision of results that is not justified by the method employed?

80% of all statistics quoted to prove a point are made up on the spot.

According to a recent survey, 33 of the people say they participate in surveys.

Q: What do you call a statistician on drugs?
A: A high flyer.

Q: How many statisticians does it take to change a lightbulb?
A: 1-3, alpha = .05

There is no truth to the allegation that statisticians are mean. They are just your standard normal deviates.

Q: Did you hear about the statistician who invented a device to measure the weight of trees?
A: It's referred to as the log scale.

Q: Did you hear about the statistician who took the Dale Carnegie course?
A: He improved his confidence from .95 to .99.

Q: Why don't statisticians like to model new clothes?
A: Lack of fit.

Q: Did you hear about the statistician who was thrown in jail?
A: He now has zero degrees of freedom.

Statisticians must stay away from children's toys because they regress so easily.

The only time a pie chart is appropriate is at a baker's convention.

Never show a bar chart at an AA meeting.

Old statisticians never die, they just undergo a transformation.

Q: How do you tell one bathroom full of statisticians from another?
A: Check the p-value.

Q: Did you hear about the statistician who made a career change and became an surgeon specializing in ob/gyn?
A: His specialty was histerectograms.

The most important statistic for car manufacturers is autocorrelation.

Some statisticians don't drink because they are t-test totalers. Others drink the hard stuff as evidenced by the proliferation of box-and-whiskey plots.

Underwater ship builders are concerned with sub-optimization.

The Lipton Company is big on statistics--especially t-tests.

Purchasing the shoes

A shoeseller meets a mathematician and complains that he does not know what size shoes to buy. "No problem," says the mathematician, "there is a simple equation for that," and he shows him the Gaussian normal distribution. The shoeseller stares some time at het equation and asks, "What is that symbol?" "That is the Greek letter pi." "What is pi?" "That is the ratio between the circumference and the diameter of a circle." Upon this the shoeseller cries out: "What does a circle have to do with shoes?!"

One is negative one

Theorem: 1 = -1
Proof:
1 = sqrt(1) = sqrt(-1 * -1) = sqrt(-1) * sqrt(-1) = 1^ = -1

Also one can disprove the axiom that things equal to the same thing are equal to each other.

1 = sqrt(1)
-1 = sqrt(1)
Therefore 1 = -1

As an alternative method for solving:

Theorem: 1 = -1
Proof:
x=1
x^2=x
x^2-1=x-1
(x+1)(x-1)=(x-1)
(x+1)=(x-1)/(x-1)
x+1=1
x=0
0=1
=> 0/0=1/1=1

Proof E equal to one

Theorem: e=1
Proof:
2*e = f
2^(2*pi*i)e^(2*pi*i) = f^(2*pi*i)
e^(2*pi*i) = 1

Therefore:
2^(2*pi*i) = f^(2*pi*i)
2=f
Thus:
e=1

Crocodile is longer

Prove that the crocodile is longer than it is wide.

Lemma 1. The crocodile is longer than it is green: Let's look at the crocodile. It is long on the top and on the bottom, but it is green only on the top. Therefore, the crocodile is longer than it is green.

Lemma 2. The crocodile is greener than it is wide: Let's look at the crocodile. It is green along its length and width, but it is wide only along its width. Therefore, the crocodile is greener than it is wide.

From Lemma 1 and Lemma 2 we conclude that the crocodile is longer than it is wide.

Refrigerate elephants

Analysis:
1. Differentiate it and put into the refrig. Then integrate it in the refrig.
2. Redefine the measure on the referigerator (or the elephant).
3. Apply the Banach-Tarsky theorem.

Number theory:
1. First factorize, second multiply.
2. Use induction. You can always squeeze a bit more in.

Algebra:
1. Step 1. Show that the parts of it can be put into the refrig. Step 2. Show that the refrig. is closed under the addition.
2. Take the appropriate universal refrigerator and get a surjection from refrigerator to elephant.

Topology:
1. Have it swallow the refrig. and turn inside out.
2. Make a refrig. with the Klein bottle.
3. The elephant is homeomorphic to a smaller elephant.

4. The elephant is compact, so it can be put into a finite collection of refrigerators. That's usually good enough.
5. The property of being inside the referigerator is hereditary. So, take the elephant's mother, cremate it, and show that the ashes fit inside the refrigerator.
6. For those who object to method 3 because it's cruel to animals. Put the elephant's BABY in the refrigerator.

Algebraic topology:
Replace the interior of the refrigerator by its universal cover, R^3.

Linear algebra:
1. Put just its basis and span it in the refrig.
2. Show that 1% of the elephant will fit inside the refrigerator. By linearity, x% will fit for any x.

Affine geometry:
There is an affine transformation putting the elephant into the refrigerator.

Set theory:
1. It's very easy! Refrigerator = { elephant } 2) The elephant and the interior of the refrigerator both have cardinality c.

Geometry:
Declare the following:
Axiom 1. An elephant can be put into a refrigerator.

Complex analysis:
Put the refrig. at the origin and the elephant outside the unit circle. Then get the image under the inversion.

Numerical analysis:
1. Put just its trunk and refer the rest to the error term.
2. Work it out using the Pentium.

Statistics:
1. Bright statistician. Put its tail as a sample and say "Done."
2. Dull statistician. Repeat the experiment pushing the elephant to the refrig.
3. Our NEW study shows that you CAN'T put the elephant in the refrigerator.

Debate about the box

An engineer, a physicist, and a mathematician are trying to set up a fenced-in area for some sheep, but they have a limited amount of building material. The engineer gets up first and makes a square fence with the material, reasoning that it's a pretty good working solution. "No no," says the physicist, "there's a better way." He takes the fence and makes a circular pen, showing how it encompasses the maximum possible space with the given material.

Then the mathematician speaks up: "No, no, there's an even better way." To the others' amusement he proceeds to construct a little tiny fence around himself, then declares:

"I define myself to be on the outside."

The math one-liners

Math problems? Call 1-800-[(10x)(13i)^2]-[sin(xy)/2.362x].

If parallel lines meet at infinity - infinity must be a very noisy place with all those lines crashing together!

Maths Teacher: Now suppose the number of sheep is x...
Student: Yes sir, but what happens if the number of sheep is not x?

Zenophobia: the irrational fear of convergent sequences.

Philosophy is a game with objectives and no rules. Mathematics is a game with rules and no objectives.

If I had only one day left to live, I would live it in my statistics class: it would seem so much longer.

Answering machine

Hello, this is probably 438-9012, yes, the house of the famous statistician. I'm probably not at home, or not wanting to answer the phone, most probably the latter, according to my latest calculations. Supposing that the universe doesn't end in the next 30 seconds, the odds of which I'm still trying to calculate, you can leave your name, phone number, and message, and I'll probably phone you back. So far the probability of that is about 0.645. Have a nice day.

Worries while flying

Two statisticians were travelling in an airplane from LA to New York. About an hour into the flight, the pilot announced that they had lost an engine, but don't worry, there are three left.

However, instead of 5 hours it would take 7 hours to get to New York. A little later, he announced that a second engine failed, and they still had two left, but it would take 10 hours to get to New York.

Somewhat later, the pilot again came on the intercom and announced that a third engine had died. Never fear, he announced, because the plane could fly on a single engine.

However, it would now take 18 hours to get to new York. At this point, one statistician turned to the other and said, "Gee, I hope we don't lose that last engine, or we'll be up here forever!"

Misunderstood people

1. They speak only the Greek language.

2. They usually have long threatening names such as Bonferonni, Tchebycheff, Schatzoff, Hotelling, and Godambe. Where are the statisticians with names such as Smith, Brown, or Johnson?

3. They are fond of all snakes and typically own as a pet a large South American snake called an ANOCOVA.

4. For perverse reasons, rather than view a matrix right side up they prefer to invert it.

5. Rather than moonlighting by holding Amway parties they earn a few extra bucks by holding pocket-protector parties.

6. They are frequently seen in their back yards on clear nights gazing through powerful amateur telescopes looking for distant star constellations called ANOVA's.

7. They are 99% confident that sleep can not be induced in an introductory statistics class by lecturing on z-scores.

8. Their idea of a scenic and exotic trip is traveling three standard deviations above the mean in a normal distribution.

9. They manifest many psychological disorders because as young statisticians many of their statistical hypotheses were rejected.

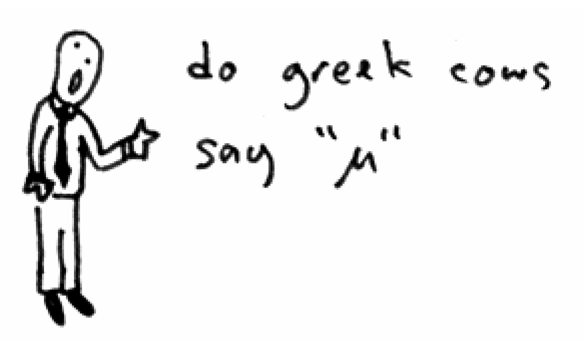
10. They express a deap-seated fear that society will someday construct tests that will enable everyone to make the same score. Without variation or individual differences the field of statistics has no real function and a statistician becomes a penniless ward of the state.

Reducing travel risk

There was this statistics student who, when driving his car, would always accelerate hard before coming to any junction, whizz straight over it , then slow down again once he'd got over it. One day, he took a passenger, who was understandably unnerved by his driving style, and asked him why he went so fast over junctions. The statistics student replied, "Well, statistically speaking, you are far more likely to have an accident at a junction, so I just make sure that I spend less time there."

The fate of marriages

It is often cited that there are half as many divorces as marriages in the US, so one concludes that average marriages have a 50% chance of ending by divorce. While I was a graduate student, among my peers there were twice as many divorces as marriages, leading us to conclude that average marriages would end twice...



Solving equation by one Blondie:

$$\frac{1}{n}\sin x = ?$$

$$\frac{1}{\cancel{n}}\mathrm{si}\cancel{\mathrm{n}}\, x =$$

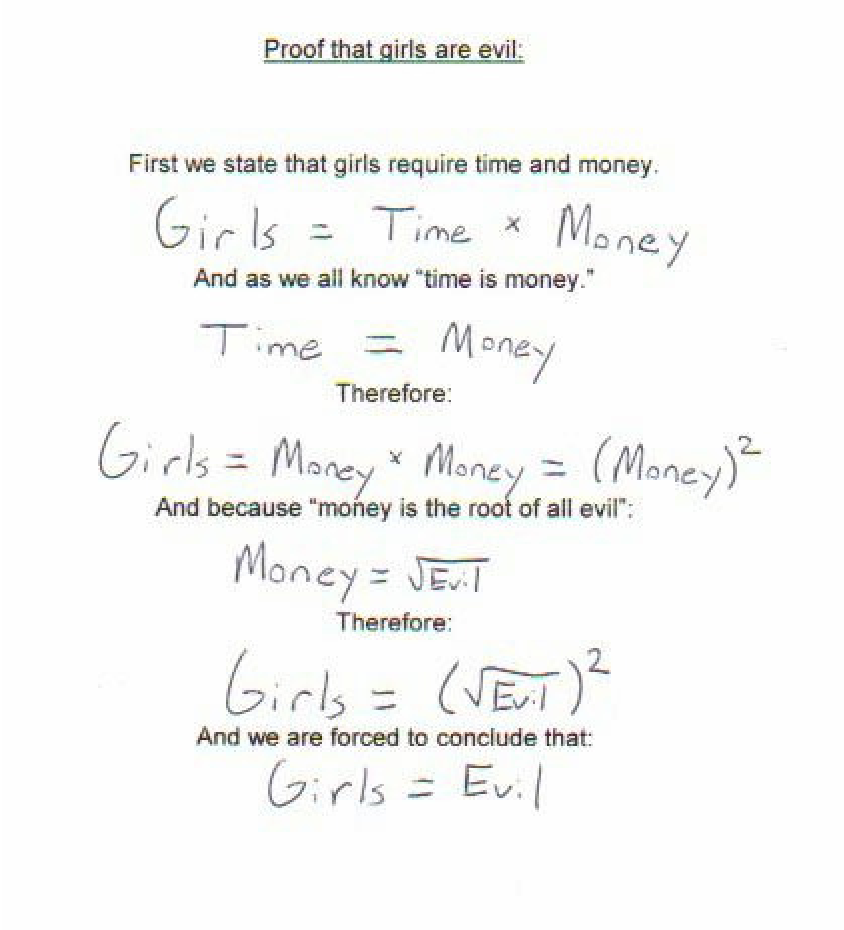
$$six = 6$$

After explaining to a student through various lessons and examples that:

$$\lim_{x \to 8} \frac{1}{x-8} = \infty$$

I tried to check if she really understood that, so I gave her a different example. This was the result:

$$\lim_{x \to 5} \frac{1}{x-5} = 5$$



Proof that girls are evil:

First we state that girls require time and money.

$$Girls = Time \times Money$$

And as we all know "time is money."

$$Time = Money$$

Therefore:

$$Girls = Money \times Money = (Money)^2$$

And because "money is the root of all evil":

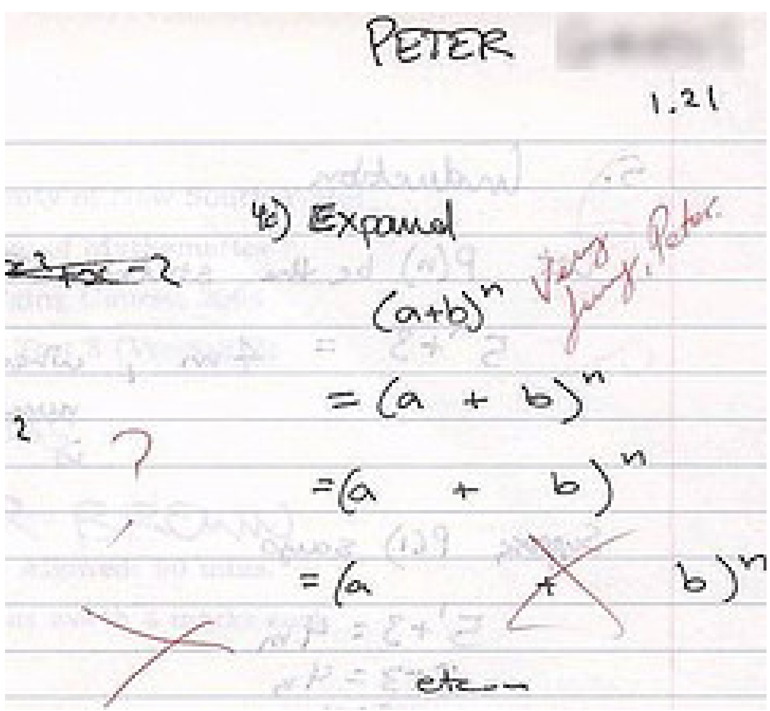
$$Money = \sqrt{Evil}$$

Therefore:

$$Girls = (\sqrt{Evil})^2$$

And we are forced to conclude that:

$$Girls = Evil$$



```
Q:  What quantity is represented by this ?

             /\         /\         /\
            /  \       /  \       /  \
            /  \       /  \       /  \
           /    \     /    \     /    \
           /    \     /    \     /    \
          /______\   /______\   /______\
             ||         ||         ||
             ||         ||         ||

  A:  9,  tree + tree + tree

  Q:  A dust storm blows through, now how much do you have ?

  A:  99,  dirty tree + dirty tree + dirty tree
```

Top $\ln(e^{10})$ reasons why e is better than π:

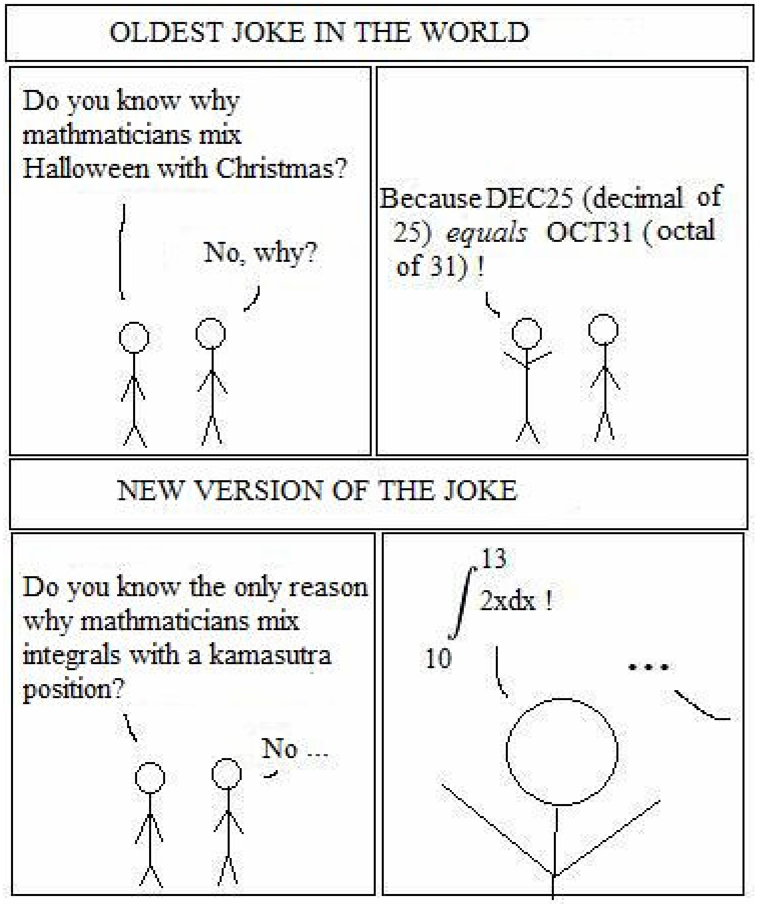
10) e is easier to spell than π.
9) $\pi \sim 3.14$ while $e \sim 2.718281828459045$.
8) The character for e can be found on a keyboard, but π sure can't.
7) Everybody fights for their piece of the pie.
6) $\ln(\pi^1)$ is a really nasty number, but $\ln(e^1) = 1$.
5) e is used in calculus while π is used in baby geometry.
4) 'e' is the most commonly picked vowel in Wheel of Fortune.
3) e stands for Euler's Number, π doesn't stand for squat.
2) You don't need to know Greek to be able to use e.
1) You can't confuse e with a food product.

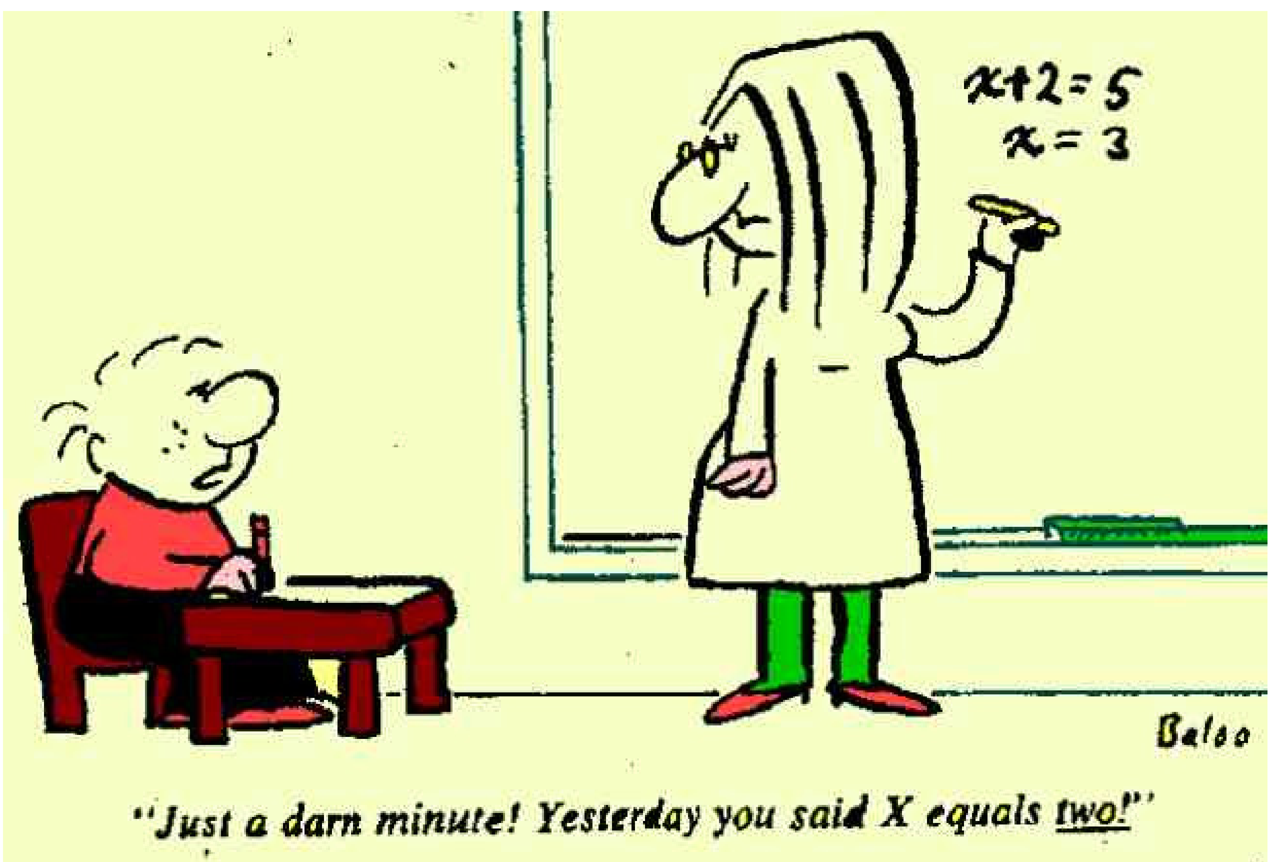
MATH DAYS

Celebrate mathematical holidays with this handy list!

Symbol	Value	Day
π	3.14159...	March 14 (any year)
e	2.71828...	February 7, 1828
ϕ	1.61803...	January 6, 1803
$\sqrt{23}$	4.79583...	April 7, 9:58am
i	$\sqrt{-1}$ (imaginary)	The day that people like math jokes

people DO SO like math jokes! GOD!!!


OLDEST JOKE IN THE WORLD
Do you know why mathmaticians mix Halloween with Christmas?
No, why?
Because DEC25 (decimal of 25) *equals* OCT31 (octal of 31) !
NEW VERSION OF THE JOKE
Do you know the only reason why mathmaticians mix integrals with a kamasutra position?
No ...
$\int_{10}^{13} 2xdx$!
...


x+2=5
x=3
Baloo
"Just a darn minute! Yesterday you said X equals two!"

Geometry Jokes

1. What do you call a man who spent all summer at the beach? Tangent
2. What do you say when you see an empty parrot cage? Polygon
3. What do you call a crushed angle? A Rectangle
4. What did the Italian say when when the witch doctor removed the curse? Hexagon
5. What did the little acorn say when he grew up?Geometry
6. What do you call an angle which is adorable? acute angle
7. What do you use to tie up a package? A Chord
8. What do you call a fierce beast? A Line
9. What do you call more than one L? A Parallel
10. What do you call people who are in favor of tractors? Protractors
11. What should you do when it rains? Coincide

1. $x^2 - x^2 = x^2 - x^2$
2. $x(x-x) = (x+x)(x-x)$
3. $x\cancel{(x-x)} = (x+x)\cancel{(x-x)}$
4. $x = 2x$
5. $1\cancel{x} = 2\cancel{x}$
6. $1 = 2$

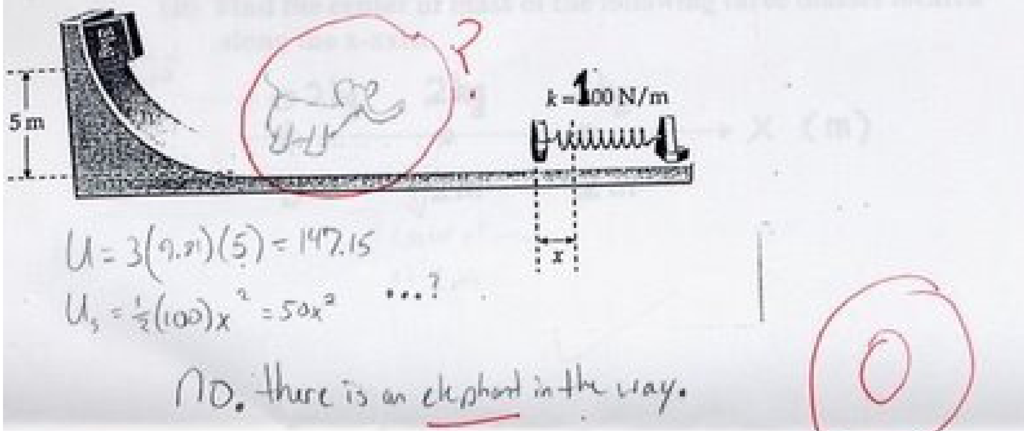
An infinite number of mathematicians walk into a bar. The first one orders a beer. The second orders half a beer. The third, a quarter of a beer. The bartender says "You're all idiots", and pours two beers.

— Randgruppenhumor cont'd

2. A 3-kg object is released from rest at a height of 5m on a curved frictionless ramp. At the foot of the ramp is a spring of force constant k = 100 N/m. The object slides down the ramp and into the spring, compressing it a distance x before coming to rest.

10 (a) Find x.

5 (b) Does the object continue to move after it comes to rest? If yes , how high will it go up the slope before it comes to rest?



$$\int 1/cabin$$
$$= logcabin + c$$
$$= house\ boat.$$

Sex is like math.

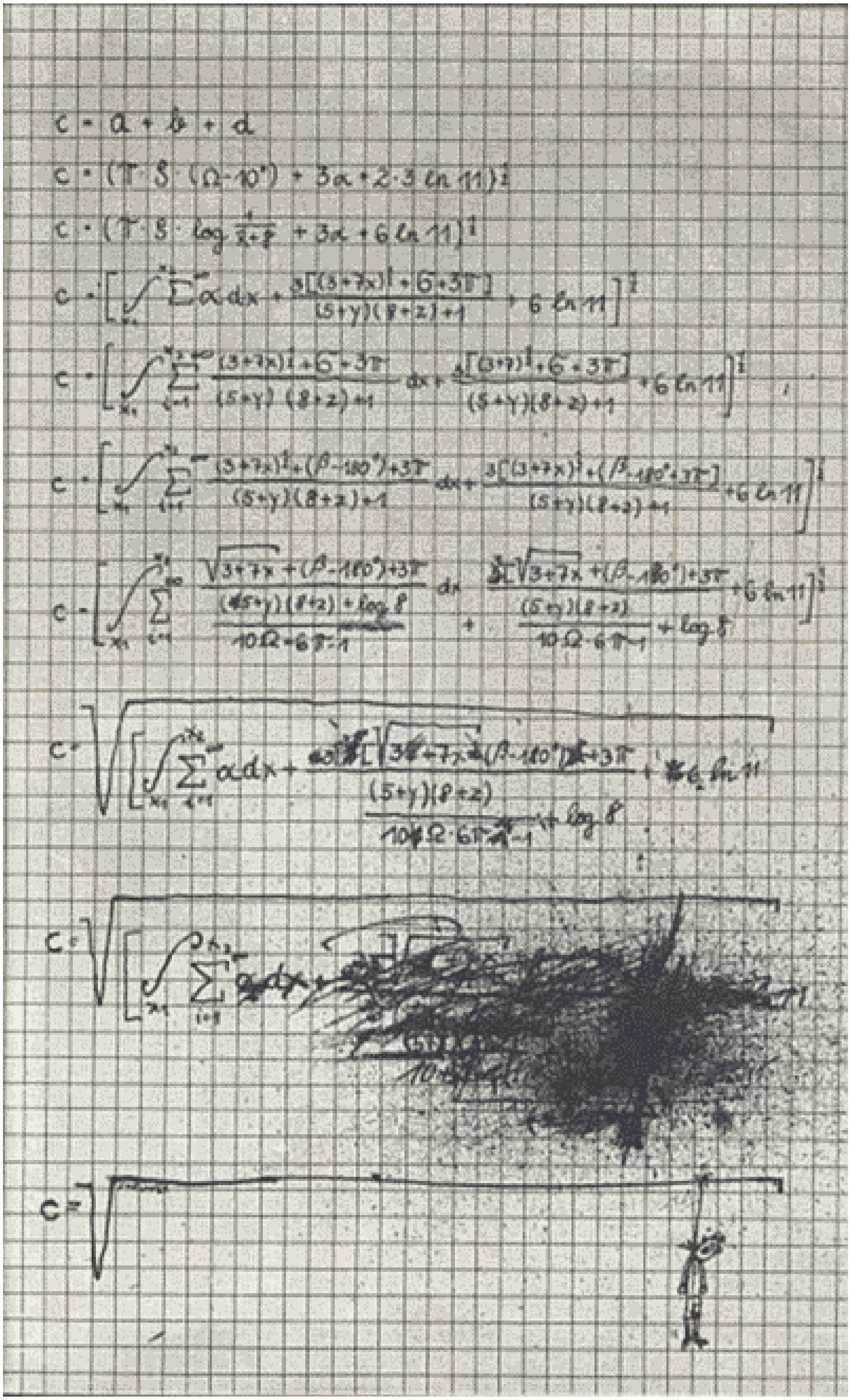
(+)Add the bed.

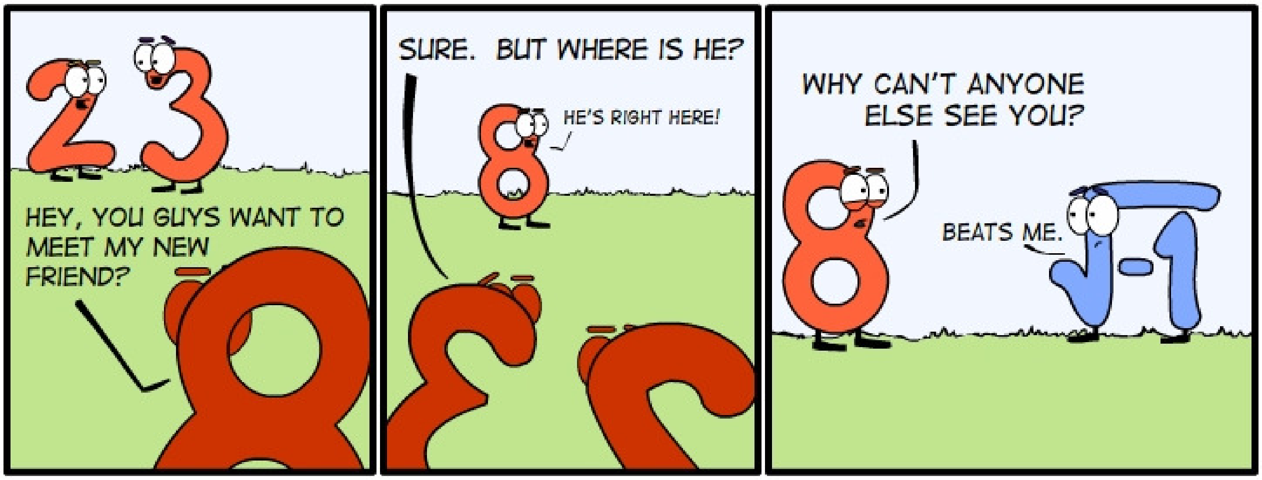
(-)Subratct the clothes.

(/)Divide the legs.

(X)And hope you don't multiply.

Now I remember why I like math so much


c = a + b + d


HEY, YOU GUYS WANT TO MEET MY NEW FRIEND?
SURE. BUT WHERE IS HE?
HE'S RIGHT HERE!
WHY CAN'T ANYONE ELSE SEE YOU?
BEATS ME.