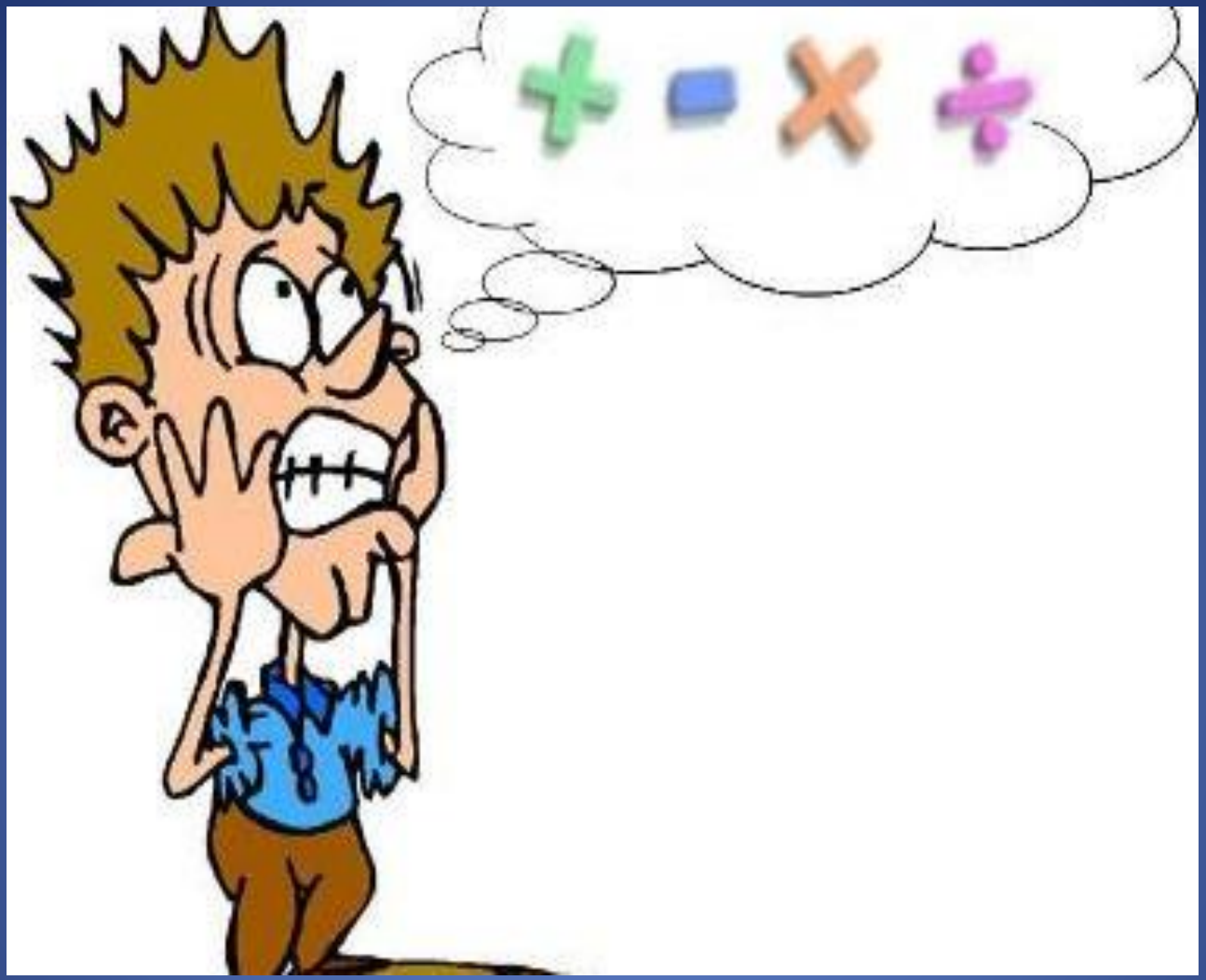
and

CONQUER

Today's Goals

- What *is* Math Anxiety?
- Common Misconceptions
- Missing Building Blocks
- Overcoming Objections
- Resources



Do these symbols cause your heart to race,
your palms to sweat,
and your breakfast to try to re-appear?

IF SO……

YOU MAY SUFFER FROM

MATH ANXIETY!

What *is*

MATH ANXIETY???

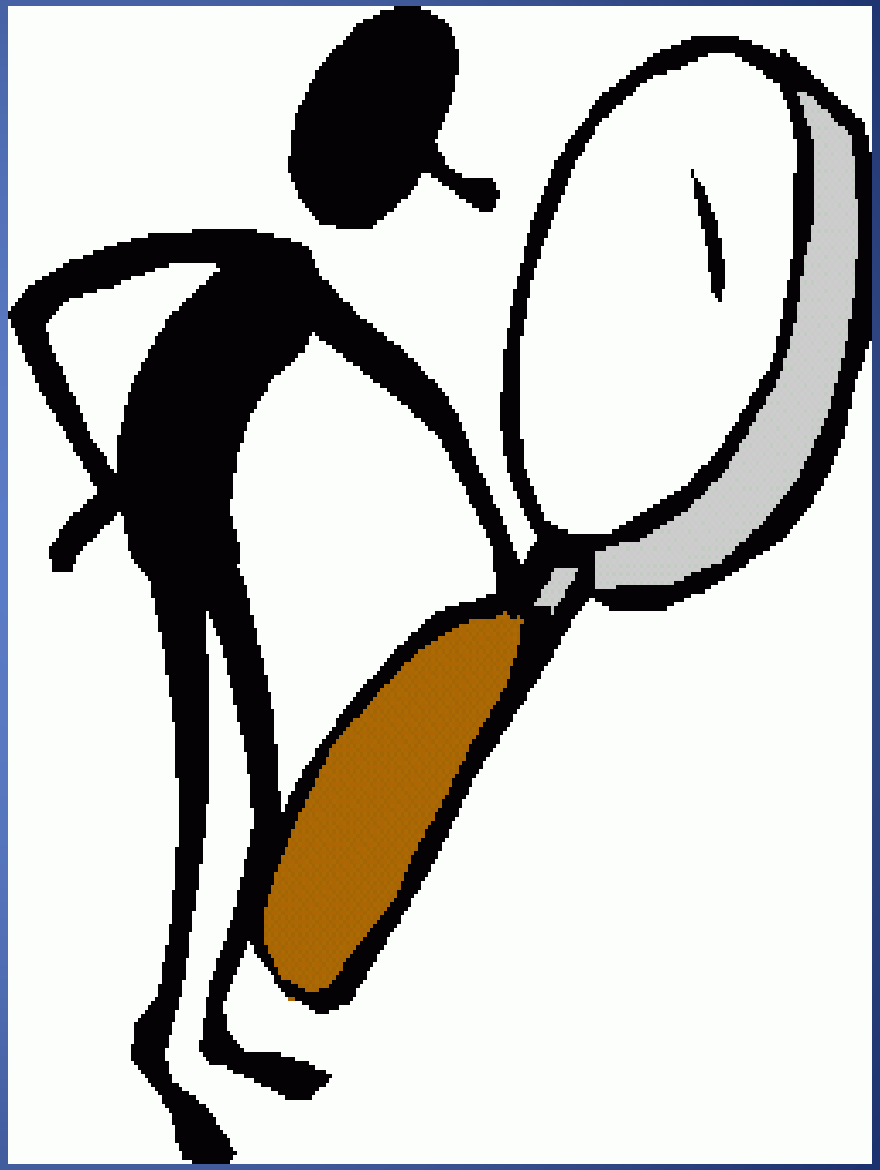
MATH ANXIETY is a type of FEAR

Overcoming math anxiety

HOW DO WE OVERCOME MATH ANXIETY?

Tips

- ISOLATE IT
- EXAMINE IT
- ANALYZE IT



Isolate It By:

- Doing math every day
- Getting organized
- Having quality study time

Examine It By:

- Attending class
- Asking questions
- Testing yourself continually

Analyze It By:

- Studying smart
- Replacing negative self-talk with positive self-talk
- Managing your time

Utilize ALL Your Resources!

Common Misconceptions

“I’m just not cut out for math!”

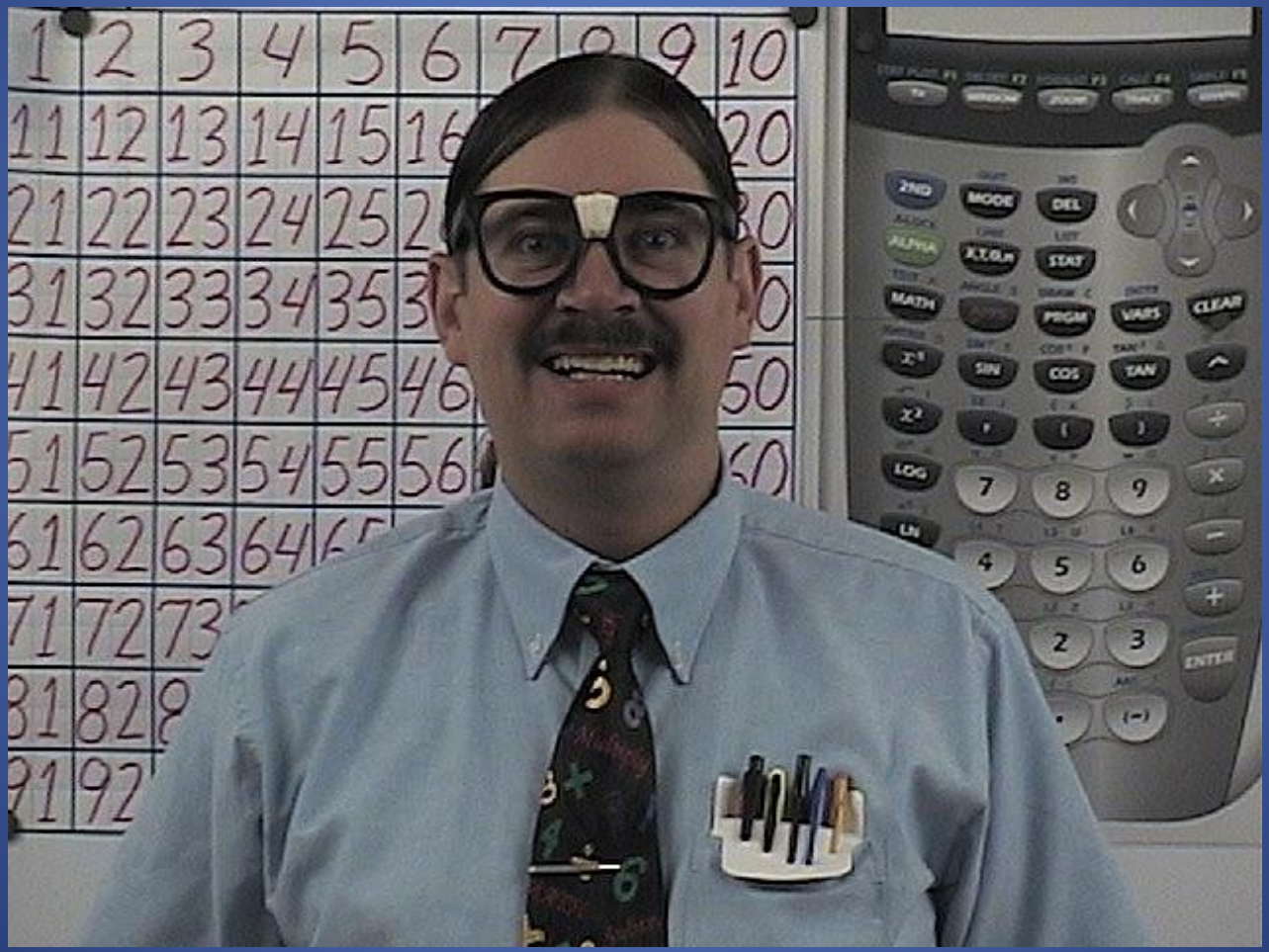
Your approach to math may not be the same as your classmate’s,

but it is no less effective.

There is not one type of brain
that is better at math than another.

CONFIDENCE

DON’T ACCEPT STEREOTYPES



Common Stereotypes

- Only some people can be good at math
- Girls have less potential in math
- Math problems are not realistic or relevant to everyday life

ALL NEGATIVE!

Think Positive Thoughts

What Building Blocks Are Missing?

Building Blocks Include:

- Knowledge of Math language and vocabulary
- Basic addition and multiplication facts
- Fractions skills
- Order of operations
- Decimals
- Percent

Tips

- ✓ Skim lower level textbook
- ✓ Take a refresher course
- ✓ You are not as behind as you *think* you are

Overcoming Objections

“It’s just so boring.”

“IT TAKES TOO MUCH TIME”

“It’s too complex to understand!”

- Break it down

- Build with the blocks

Anxiety over time commitment

- Leads to procrastination
- Overcome by acknowledging this fear
  - –You can “step away” for a while
  - –You won’t miss something
- Other things *can* wait for 1 -2 hours

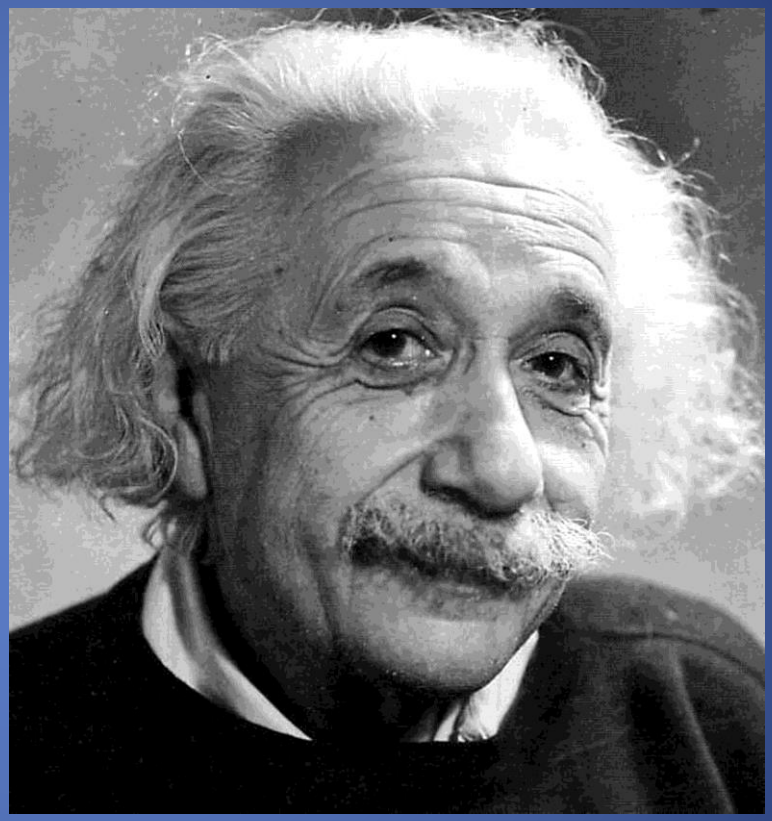
The Mysterious Fractal

Solving Mysteries can be Gratifying!

REMEMBER!

Do not worry about your difficulties in mathematics, I assure you that mine are greater.

- Albert Einstein



OTHER MATH MYSTERIES

- Connection between music and math
- Infinity
- Math riddles
- Math games

The 11 Times Trick

- Take the original number and imagine a space between the two digits (in this example we will use 52:
- 5_2
- Now add the two numbers together and put them in the middle:
- 5_(5+2)_2
- That is it – you have the answer: 572.

The 11 Times Trick

- If you need to square a 2 digit number ending in 5, you can do so very easily with this trick. Mulitply the first digit by itself + 1, and put 25 on the end. That is all!
- 25^2 = (2x(2+1)) & 25
- 2 x 3 = 6
- 625

Multiply by 5

- Take any number, then divide it by 2 (in other words, halve the number). If the result is whole, add a 0 at the end. If it is not, ignore the remainder and add a 5 at the end. It works everytime:
- 2682 x 5 = (2682 / 2) & 5 or 0
- 2682 / 2 = 1341 (whole number so add 0)
- 13410

Multiply by 9

- This one is simple – to multiple any number between 1 and 9 by 9 hold both hands in front of your face – drop the finger that corresponds to the number you are multiplying (for example 9×3 – drop your third finger) – count the fingers before the dropped finger (in the case of 9×3 it is 2) then count the numbers after (in this case 7) – the answer is 27.

Multiply by 4

- This is a very simple trick which may appear obvious to some, but to others it is not. The trick is to simply multiply by two, then multiply by two again:

Calculate a Tip

- If you need to leave a 15% tip, here is the easy way to do it. Work out 10% (divide the number by 10) – then add that number to half its value and you have your answer:
- 15% of $25 = (10% of 25) + ((10% of 25) / 2)
- $2.50 + $1.25 = $3.75

Tough Multiplication

- If you have a large number to multiply and one of the numbers is even, you can easily subdivide to get to the answer:
- 32 x 125, is the same as:
  16 x 250 is the same as:
  8 x 500 is the same as:
  4 x 1000 = 4,000

Dividing by 5

- Dividing a large number by five is actually very simple. All you do is multiply by 2 and move the decimal point:
- 195 / 5
- Step1: 195 * 2 = 390
  Step2: Move the decimal: 39.0 or just 39
- 2978 / 5
- step 1: 2978 * 2 = 5956
  Step2: 595.6

Resources

- Academic Support Center (free tutoring)
- http://www.purplemath.com/
- http://www.sosmath.com/
- http://www.mathportal.org/
- http://www.mathsisfun.com/algebra/index-college.html
- https://www.khanacademy.org/