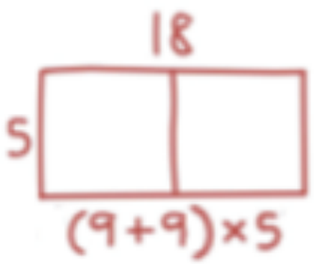
Nov 29, 2016

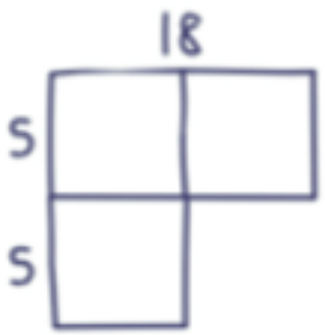
18 x 5

Neil



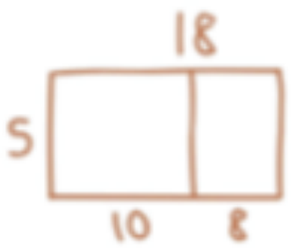
45+45=90

Ricardo



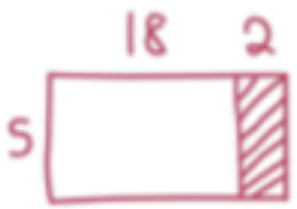
18×5=9×10

Sammi



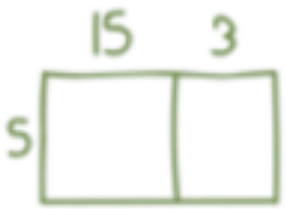
(10×5)+(8×5)
50+40=90

Jaime



20×5=100
2×5=10
100−10=90

Ariane



15×5=75
3×5=15
75+15=90

Bryan

(18×2)+(18×2)+18
36+36+18=90

Number Talks

125 x 4

25 x 14

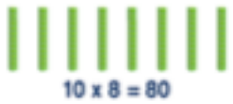
Place Value

Billions	Hundred Millions	Ten Millions	Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones		Tenths	Hundredths	Thousandths
						3,	5	8	7				
Three thousand, five hundred eighty-seven													
				2	9	4,	7	1	0	.	6	2	5
Two hundred ninety-four thousand, seven hundred ten and six hundred twenty-five thousandths													
7	1	8,	0	6	0,	4	9	5	.	3			
Seven hundred eighteen million, sixty thousand, four hundred ninety-five and three tenths													

Model Form

The model form is a visual representation of a number using groups of blocks for each place value. Each block represents a different value depending on the number of cubes it has.

1,000 x 3 = 3,000



10 x 8 = 80

100 x 5 = 500

1 x 7 = 7

The place value is the value of a digit based on its position in a number.

Zero acts as a placeholder when there is no value in a column.

Numbers on the right of the decimal point represent a fraction of a whole number.

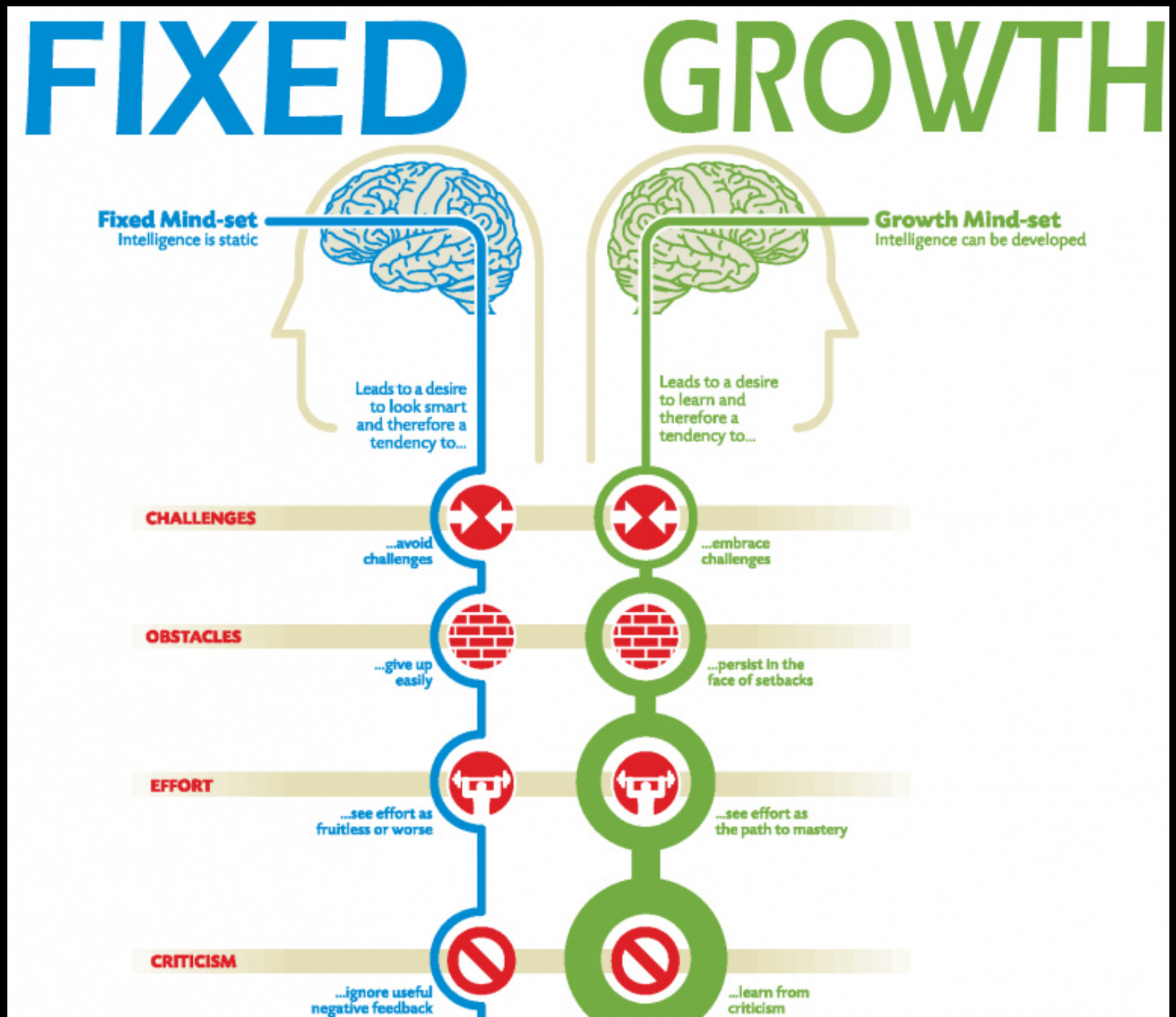
Expanded Form

The expanded form of this number can be written in two ways. Sample 1 is more commonly used, but both are correct.

3	,	5	8	7

Sample 1:
3,000 + 500 + 80 + 7

Sample 2:
3,587 = (3 x 1,000) + (5 x 100) + (8 x 10) + 7


FIXED
GROWTH
Fixed Mind-set
Intelligence is static
Growth Mind-set
Intelligence can be developed
Leads to a desire to look smart and therefore a tendency to...
Leads to a desire to learn and therefore a tendency to...
CHALLENGES
...avoid challenges
...embrace challenges
OBSTACLES
...give up easily
...persist in the face of setbacks
EFFORT
...see effort as fruitless or worse
...see effort as the path to mastery
CRITICISM
...ignore useful negative feedback
...learn from criticism

https://www.youtube.com/watch?v=8qDjg8mdd8c

ACT 2

What do you need to know to solve the problem?

A Prime Number can be divided evenly only by 1 or itself.
And it must be a whole number greater than 1.

Example: 7 can only be divided evenly by 1 or 7, so it is a prime number.

But 6 can be divided evenly by **1, 2, 3 and 6** so it is NOT a prime number (it is a **composite** number).

Example:

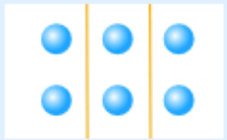
6 can be divided evenly by 2, or by 3:

$$6 = 2 \times 3$$

Like this:

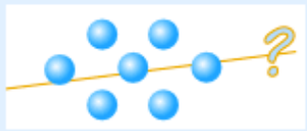
divided into 2 groups

or



divided into 3 groups

But 7 cannot be divided up evenly:



- When a number can be divided up evenly it is a **Composite Number**
- When a number can **not** be divided up evenly it is a **Prime Number**

So **6** is Composite, but **7** is Prime.

Why is 17 a prime number
and 15 is not?

How many prime numbers are there from 1-101?

Guess a number that you know is too high?

Guess a number that you know is too low?

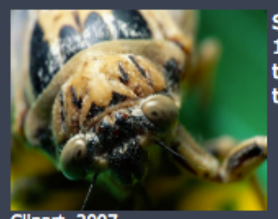
Guess a number you think is close

Why are prime numbers important?

Uses of Prime Numbers

You may be reading through all of this and wondering what exactly is the point of finding out prime numbers? Up until the 19th century, there was little use for prime numbers, and mathematicians calculated them hoping to make some form of a breakthrough. Calculation of prime numbers was a purely mathematical endeavor. But, in the 19th century, there was a need for secrecy, especially during times of war. Messages and files needed to encoded, so that the enemy couldn't read them. Encryption was used, and computers were used to make more complex, harder to crack codes. It was found that using two prime numbers multiplied together makes a much better key than any old number, because it has only four factors. One, itself, and the two primes that it is a product of. This makes the code much harder to crack. Finally, after thousands of years, man had a real use for primes, and what better use than keeping documents and files safe. Prime numbers can also be used in pseudorandom number generators, and in computer hash tables. Primes only use is in the computer world, and we still don't have any use for primes in the physical world, however some say that some insects do.

Clipart, 2007.



Clipart, 2007.

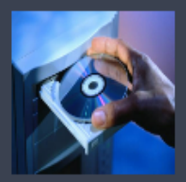
Some insects will live in the ground for a number of years, and come out after 13 or 17 years. Both 13 and 17 are prime numbers, and by emerging at these times, it makes it harder for predators to adapt and kill the insects, and therefore more of them survive. One bug that does this is the cicada.

History of Prime Numbers

Uses of Prime Numbers

Patterns in Prime Numbers

Types of Prime Numbers



Prime Number Programs I Wrote

Conclusion and Bibliography

Dec 1, 2017

Quiet sketching:

- Episode 1 Post Card
- Bison Drawing
- Drawing of your choice