



G-TEAMS at Safford Middle School

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FUN WITH SUDOKU!

9	8	6		4	
3	4			2	7
	5	6	2	1	
	7	9			8
8	4	2	6	5	9
1			5	3	
		1	7	4	9
2	7			1	5
3		9	8	7	6

Sudoku has ONE rule: Each digit 1–9 must appear in every row, column, and small 3x3 grid ONCE and only ONCE.

We played Sudoku to work on our reasoning and justification skills.

Which is the better reason for filling in the circled 7 as the first move? (See answer below)

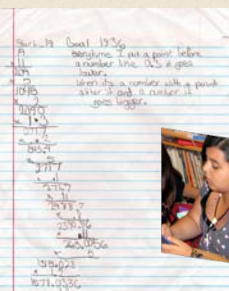
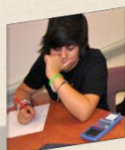
- 1) There is no 7 in the 3x3 box and no 7 in the same row or column.
- 2) The 7 can't fit in the other two spaces in the 3x3 box because there are already 7s in the same row.

Can you fill in the highlighted column without completing any other part of the puzzle?

Answer: 2

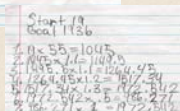
THE CALCULATOR GAME!

Rules:
Choose a "starting" number and a "goal" then use a single operation (multiplication) to get "close" to the goal.



We learned:

- That it is ok to not get the "right answer" on the first try.
- What numbers "do" when we multiply (number sense).
- To use our new knowledge to make better guesses on the next turn.



Shooting Basketballs!

QUESTION
Who is going to make the most shots?

• Nick made 2 shots in 15 seconds — data
• Jesus made 3 shots in 25 seconds

#1 method

• Nick 7.5 sec 10 shots
• Jesus 7.5 sec 9 shots
25, 50, 75, 100
15, 30, 45, 60, 75, 90

#2 method

• 50 shots in 25 seconds
• Nick can make just as many shots in less time

#3 method

• Nick 7.5 seconds to make 1 shot.
• Jesus 8.33 seconds to make 1 shot.

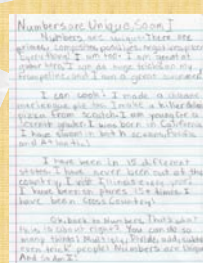
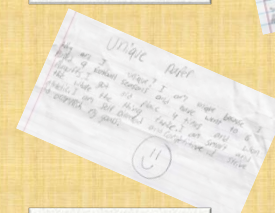
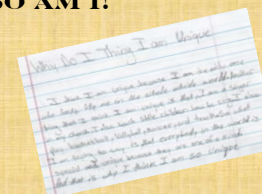
2/15
1/10

Nick Made more Shots!

Some of our classmates threw pieces of paper away while we timed them. The next day we used their "stats" to determine who would throw away the most paper if they were to help clean up the room. Look at how many different ways we could explain it!

NUMBERS ARE UNIQUE AND SO AM I!

There are lots of ways to write numbers. For example
 $60 = 10 \times 6$ and $60 = 20 \times 3$.
But there is only ONE way to write numbers as a product of primes!
 $60 = 2 \times 2 \times 3 \times 5$,
now that's unique!
Do you know why 1 is not prime?
(Find answer below)



One reason 1 is not prime is because that would mean
 $60 = 2 \times 2 \times 3 \times 5$ and $60 = 2 \times 2 \times 3 \times 5 \times 1$,
now that's not unique @

WE "LOVE" RATIOS AND PROPORTIONS!

To celebrate Valentines Day we used candy hearts to answer these questions about ratios and proportions:

- 1) Find the ratio of total yellows & greens to total candy.
- 2) Find the ratio of total peach, purple, & blue to total yellow, green, & pink.
- 3) Which group has the largest ratio of yellows to greens?
- 4) What is a proportion?
- 5) How many purples does group B need in order for their ratio of purple to pink to be proportional to yours?
- 6) How many peaches does group B need in order for their ratio of green to peach to be proportional to yours?

Ratio: A way to compare two quantities using division

Proportion: An equation stating that two ratios are equal

