

Hello, Students!

I hope you are all doing well and are keeping your brain active with these challenges 😊 Remember what I always tell you, even if you do not get the answers correct, you are learning and keeping the neurons in your brain active so it keeps getting stronger; be persistent but take breaks so you don't get overwhelmed! Email me if you need help or want to meet via Zoom!

Ms. Strazar

Answers to Critical Thinking Puzzle:

Problem 1: $b = 84$; $c = 37$; $d = 55$; $a - d = 37$

Problem 2: $a = 125$; $c = 86$; $d = 78$; $b - d = 54$

Problem 3: $a = 403$; $b = 307$; $d = 189$; $a - c = 255$

Problem 4: $a = 8,700$; $b = 9,320$; $c = 1,350$; $b - d = 4,550$

Answers to Zaccaro's Perplexing Warmups:

- a) Throw the fan the opposite way you want to go. (Newton's Law: "For every action there is an equal and opposite reaction.")
- b) 50 cents
Ball: b
Glove: $b + 9$
Equation: $2b + 9 = 10$; $b = \$.50$; check $\$9.50 + .50 = \10
- c) 10^{86}

Answers to Perplexing Problems:

- 1) $91/216$
You must find the chance of losing on each roll: $5/6$
Chance of losing with three rolls: $5/6 \times 5/6 \times 5/6 = 125/216$
If the chance of losing is $125/216$, then the chance of winning is $1 - 125/216 = 91/216$
- 2) Keeps door: $1/3$
Switches: $2/3$
The correct answer is easier to see if you pretend that there are a thousand doors and the valuable prize is behind one of the doors. You are the contestant and pick door number 612. Your chances of winning are of course 1 in 1000. Now the game show host, who knows where the prize is, opens the rest of the doors except door number 179. He now offers you the chance to change doors to number 179. Should you switch? You would be wise to switch because door number 179 has a 999 out of a thousand chance of winning, while your door still has only a 1 in 1000 chance of winning.
- 3) It is the same pressure either way.

Hello again!

I hope you had a chance to make smoothies! I would love to make them when we finally meet together at school so please save your recipes!!! If you plan on making any again, maybe we can Zoom and make them together. Just email me ahead of time so I can make sure I have the ingredients! 😊

Ms. Strazar

Answers to Delicious Math

Answers will vary for the cost and other areas of your chart, however, the measurements in the chart for 'Serves 1' should be used to calculate the rest of the 'MAKES' row (Serves 2, 3, etc.)

*** To do this, simply multiply the number in 'Serves 1' by the number in 'Serves 2', 3, etc.**

'Serves 2' answers for 'MAKES' row would be $(8 \times 2) = 16\text{oz}$; $(1 \times 2) = 2$ cups; $(236.58 \times 2) = 473.16$ ML (milliliters); $(0.23658 \times 2) = .473$ L (liters; .47316 rounded to the thousandths)

'Serves 3' answers for 'MAKES' row would be $(8 \times 3) = 24\text{oz}$; $(1 \times 3) = 3$ cups; $(236.58 \times 3) = 709.74$ ML (milliliters, or 710ml if you rounded; $(0.23658 \times 3) = .710$ L (liters; .70974 rounded to the thousandths)

'Serves 10' answers for 'MAKES' row would be $(8 \times 10) = 80\text{oz}$; $(1 \times 10) = 10$ cups; $(236.58 \times 10) = 2365.8$ ML (milliliters); $(0.23658 \times 10) = 2.3658$ L (liters; or 2.37 rounded to the hundredths)

*** NOTE: This should remind you of using the 'Think 1' concept you worked on with me in school!**