Logic: Due Friday, October 11, 2024

Name _____   Period ____

Problem 1   Time = _____

Find A, B, C, and D given the following facts.

$A < B < C < D$ **None of the letters is equal to 0 nor negative.**

$A + D + D = 26$

$A + B + C = 17$

$A + B + B + C = 22$

$A + A + B + B = 18$

A = _____   B = _____   C = _____   D = _____

Problem 2   Time = _____

Cross out 16 of the letters below to form a 3 word sentence that is common.

APLATSYOIUTODFLOSTRAWIAURTDS

Problem 3   Time = _____

Make each row and column add up to 60.
Use the following numbers to fill in the missing blanks:
0, 0, 3, 6, 15, 18, 18, 18, 24, 24, 39

12			21
			0
24		18	

X, Y, and Z are three different digits in the problem below, with none of them being 0. Find the values of them that make the below statement true.
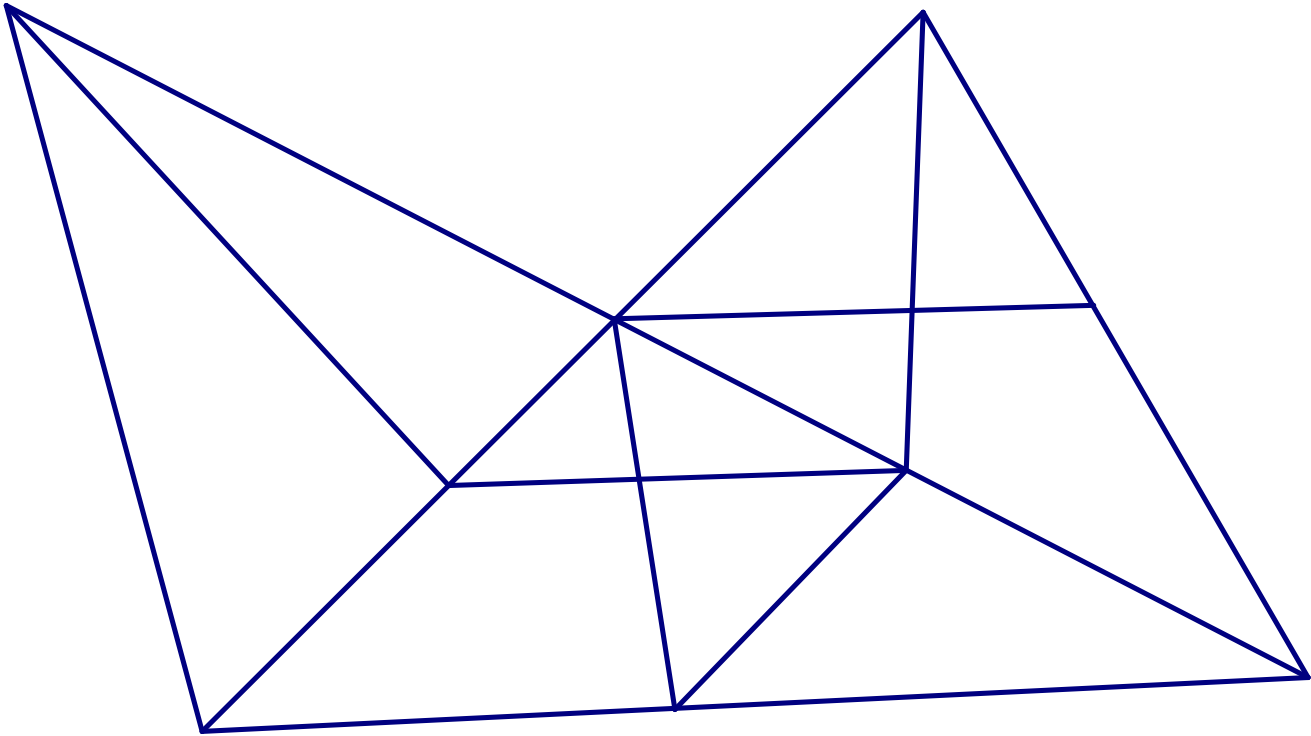
NOT MY OWN

$$
\begin{array}{r}
X\,X\,X\,X \\
Y\,Y\,Y\,Y \\
+\ Z\,Z\,Z\,Z \\
\hline
Y\,X\,X\,X\,Z
\end{array}
$$

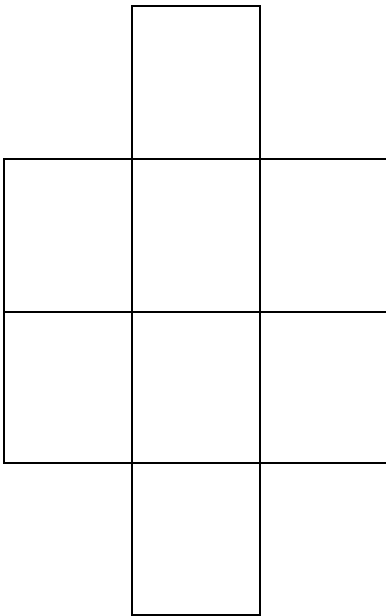X = _____   Y = _____   Z = _____

Problem 5   Time = _____

How many total triangles do you see? This is not as easy as you might think. Come up with a way to keep track of your triangles.

Problem 6   Time = _____

**Here is an old problem I remember from when I was your age.
Put the numbers 1-8 in the squares below, but you can't have any two
consecutive numbers touching horizontally, vertically, or diagonally.**

Problem 7   Time = _____

**Here is another old problem from when I was younger (not that I am old now).
Place two minus signs and one plus sign between the numbers below to make it
a true equation.**

1 2 3 4 5 6 7 8 9 = 100

Problem 8   **Time = _____**

<u>Puzzle 8: Dogs and Cereal</u>

I have four girls in my class who always talk about their dogs, their boyfriends, and their favorite cereal. If they would just focus more on the math I am teaching them, they would be much better off. Abby, Lori, Missy, and Tina have different dogs and different favorite cereals, but three of them have the same boyfriend. The types of dogs the girls have are Poodle, Beagle, Husky, and Greyhound while their favorite cereals are Lucky Charms, Froot Loops, Trix, and Cheerios

1. The four are Abby, the Froot Loop lover, Husky owner, and Poodle owner.
2. Lori does not like Froot Loops, Lucky Charms, Poodles, or Greyhounds.
3. Neither Missy nor the Lucky Charm lover, have a Husky or a Beagle.
4. The Beagle owner, Froot Loop lover, and Lori are the three who have the same boyfriend.
5. The Husky owner loves Cheerios.

		Dog				Cereal			
		Beagle	Greyhound	Husky	Poodle	Cheerios	Froot Loops	Lucky Charms	Trix
Name	Abby								
	Lori								
	Missy								
	Tina								
Cereal	Cheerios				
	Froot Loops				
	Lucky Charms				
	Trix				

Name	Dog	Cereal
Abby		
Lori		
Missy		
Tina		

Problem 9   **Time = _____**

Using the numbers 1-16, make each adjacent pair of numbers (vertically and horizontally) add up to a prime number.
Prime numbers are numbers that can only be divided by 1 and themselves.
Here are the first 11 prime numbers, which is all you should really need: 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, and 31.

		1	
	7	6	

Problem 10   **Time = _____**

Here is a problem I saw on a Math Riddle Quiz on Facebook. Hence, this is not one of mine.
Consider the following digits: 1, 1, 2, 2, 3, 3, 4, 4
Create a number where there is only 1 digit between the ones, 2 digits between the twos, 3 digits between the threes, and 4 digits between the fours.

For example, 43121324 is almost correct since there is one digit between the ones, two digits between the twos, and three digits between the threes; however, there are six digits between the fours and there needs to be just 4.

Logic 1 Answers

(Due Friday, October 11)

Name _____   **Period** ____

Problem 1   **Time = _____**

A = ____   B = ____   C = ____   D = ____

Problem 2   **Time = _____**

Sentence: _____

Problem 3   **Time = _____**

12			21
			0
24	18		

Problem 4   **Time = _____**

X = ____   Y = ____   Z = _____

Problem 5   **Time = _____**

Triangles = _____

Problem 6   **Time = _____**
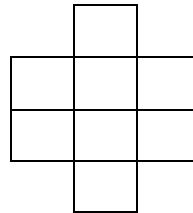
Problem 7   **Time = _____**

1 2 3 4 5 6 7 8 9 = 100

Problem 8   **Time = _____**

Name	Dog	Cereal
Abby		
Lori		
Missy		
Tina		

Problem 9   **Time = _____**

		1	
	7	6	

Problem 10   **Time = _____**

Answer = _____