

Math Problems of the Day Answers (Week 3/30 - 4/3)

Monday:

In a bag full of small balls, $\frac{1}{4}$ of these balls are green, $\frac{1}{8}$ are blue, $\frac{1}{12}$ are yellow, and the remaining 26 are white. How many balls are blue?

1. Find the fraction of green, blue, and yellow balls:

$$\frac{1}{4} + \frac{1}{8} + \frac{1}{12}$$

$$\frac{6}{24} + \frac{3}{24} + \frac{2}{24} = \frac{11}{24} \quad \text{Get a common denominator, then add the numerators}$$

2. Find the fraction representation of the 26 white balls:

$$\frac{24}{24} - \frac{11}{24} = \frac{13}{24} \quad \text{This is the fraction representation of the 26 white balls}$$

3. Find the total number of balls:

Let x = the total number of balls.

$$\frac{13}{24} \text{ of } x = 26 \text{ balls}$$

$$\frac{13}{24}(x) = 26 \quad \text{Write equation}$$

$$\left(\frac{24}{13}\right) \frac{13}{24}(x) = 26 \left(\frac{24}{13}\right) \quad \text{Multiply both sides by } \frac{24}{13}$$

$$x = 48 \quad \text{This is the total number of balls}$$

4. Find the number of blue balls:

The fraction of blue balls is $\frac{1}{8}$ of x (or 48)

$$\frac{1}{8}(48) = 6 \quad \boxed{\text{There are 6 blue balls}}$$

Tuesday:

Find the value of each dessert.

$$\text{cake} \times \text{cake} \times \text{cake} = \text{cannoli}$$

$$\text{cake} = \text{cake}$$

$$\text{ice cream} \times \text{ice cream} \times \text{ice cream} = 27$$

$$\text{ice cream} = \text{ice cream}$$

$$\text{ice cream} \times \text{cake} \times \text{ice cream} = 18$$

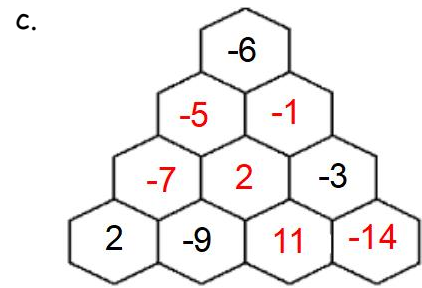
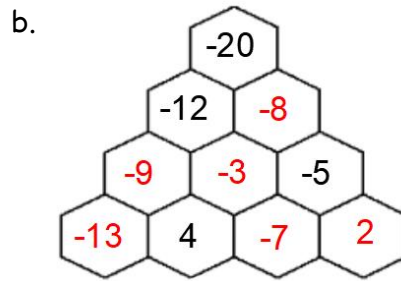
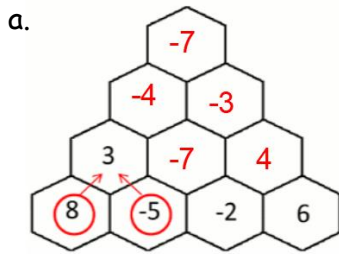
$$\text{cannoli} = \text{cannoli}$$

$$\text{cannoli} \times \text{cannoli} \times \text{cannoli} = ?$$

Solution: Ice Cream = 3, Cake = 2, Cannoli = 8

Wednesday:

Each hexagon is made by adding up the numbers in the two hexagons below it. Fill in the missing numbers in these puzzles.



Thursday:

Stuart bought a sweater on sale for 30% off the original price and another 25% off the discounted price. If the original price of the sweater was \$30, what was the final price of the sweater?











1. The price with 30% off: 30% as a decimal = 0.3
 $30 - (0.3 \cdot 30)$
 $30 - 9 = \$21$ sale price
2. The price with another 25% off: 25% as a decimal = 0.25
 $21 - (0.25 \cdot 21)$
 $21 - 5.25 = \$15.75$

The final price of the sweater is \$15.75

Friday:

Multiplication Table

Find the value of each icon in the multiplication table below:

		2	
	1		
	3		9
		12	



Solution: Softball = 1, Soccer ball = 3, Guitar = 6, Football = 2, Hockey skate = 18