

1. Remove parenthesis and simplify:

$$(2x + 4y + 3) : 4 + \frac{1}{2} \cdot (x + 2y - \frac{1}{2}) = \underline{\hspace{10cm}}$$

$$\frac{1}{5} \cdot (10w - 15x) + (18x - 6w) : 3 = \underline{\hspace{10cm}}$$

$$(\frac{1}{2}x + 9w) \cdot \frac{1}{3} - (2w - \frac{5}{6}x) = \underline{\hspace{10cm}}$$

2. Calculate:

$$\frac{2}{3} + \frac{1}{5} =$$

$$\frac{2}{3} - \frac{5}{6} =$$

$$\frac{3}{4} \times (\frac{6}{27}) = \underline{\hspace{2cm}}$$

$$\frac{2}{3} \times \frac{4}{9} = \underline{\hspace{2cm}}$$

$$\frac{5}{7}x \cdot \frac{21}{100} = \underline{\hspace{2cm}}$$

$$8x \cdot \frac{3}{4} = \underline{\hspace{2cm}}$$

$$2x \cdot \frac{3}{4} = \underline{\hspace{2cm}}$$

$$12w \times \frac{5}{6} = \underline{\hspace{2cm}}$$

3. Solve the equations:

$$|x-4| = 3$$

$$|3x|-x = 4$$

4. Indicate the order of operations in the expressions below:

$$3 : x - 4 \cdot y$$

$$5z + 12 \cdot (3x + 1)$$

$$(12x + 4y) : (z + x)$$

$$\frac{x+y}{25 - 4}$$

$$\frac{4x - 2 \times \frac{1}{2}}{3x - 4y}$$

5. How many times do you need to weigh coins on a two cup scale to find a single heavier fake coin among 27 ones?

6. Translate points and shapes according to the instructions given by the arrows:

