

Solve in this handout**1. Find and present in the *simplest form* ...**

$\frac{1}{6}$ of $\frac{2}{3}$ is

$\frac{5}{6}$ of $\frac{2}{3}$ is

$\frac{1}{8}$ of $\frac{1}{10}x$ is

$\frac{3}{8}$ of $\frac{1}{10}x$

2. Calculate:

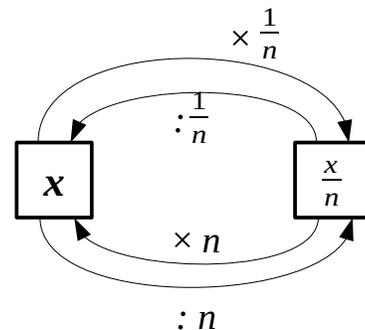
$|3| =$

$|-3| =$

$|1 - 4| =$

$|1 - 7| =$

$|2 + (-9)| =$

**3. Calculate:**

$1 \times \frac{1}{4} =$

$\frac{1}{6} \times \frac{1}{3} =$

$\frac{1}{12} \times \frac{1}{4} =$

$1 : \frac{1}{4} =$

$\frac{1}{6} : \frac{1}{3} =$

$\frac{1}{12} : \frac{1}{4} =$

$3 \times \frac{1}{4} =$

$\frac{1}{18} : \frac{1}{6} =$

$\frac{1}{12} : \frac{1}{6} =$

$3 : \frac{1}{4} =$

$\frac{1}{18} \times \frac{1}{6} =$

$\frac{1}{12} \times \frac{1}{6} =$

4. Calculate:

$2 \times (-4) =$

$(-4) \times 2 =$

$4 : 2 =$

$(-4) : 2 =$

$(-4) \times (-2) =$

$(-4) : (-2) =$

$2 : 4 =$

$(-2) : (-4) =$

Solve in your notebook

5. Show that ...

a). $(4 + 8x) : 4 + (y - x) \cdot 2 = 1 + 2y$

b). $(\frac{1}{4} + \frac{1}{6}x) \cdot 12 + (6 - 6x) : 3 = 5$

6. Make appropriate drawings to solve the equations:

a). $\frac{2}{3}x = \frac{1}{6}$

b). $\frac{1}{3}x - \frac{1}{4} = \frac{1}{2}$

c). $\frac{5}{6} - \frac{y}{4} = \frac{1}{3}$

7. Make appropriate **drawings** to solve the equations. Indicate which equations have an empty set of solutions.

a). $|y| = 4$

b). $|y| = -4$

c). $|x| = -5$

d). $|x - 1| = 2$

8. Make appropriate drawings to solve the equations.

a). $12x - 4 = 2$

b).* $\frac{1}{2} - 6 : x = \frac{1}{4}$ /This equation might require a drawing for each step

Answers:

6a: $x = \frac{1}{4}$

6b: $x = \frac{9}{4} = 2\frac{1}{4}$

6c: $y = 2$

7a: $\{-4, 4\}$

7b: \emptyset

7c: \emptyset

7d: $\{-1, 3\}$

8a: $x = \frac{1}{2}$

8b: $x = 24$