

Solve in this handout:**1. Multiply:**

$2 \times 3 =$

$2 \times (-3) =$

$(-2) \times 3 =$

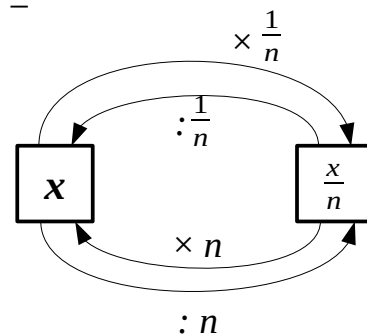
$(-2) \times (-3) =$

$4 \times 6 =$

$4 \times (-6) =$

$(-4) \times 6 =$

$(-4) \times (-6) =$

**2. Calculate:**

$2 \times \frac{1}{4} =$

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

$\frac{5}{12} \times \frac{1}{3} =$

$2 : \frac{1}{4} =$

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

$\frac{5}{12} : \frac{1}{3} =$

$2 \times 4 =$

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

$\frac{5}{12} : 3 =$

$2 : 4 =$

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

$\frac{5}{12} \times 3 =$

3. Make a Venn diagram to solve the following word problem:

Each out of 60 dragons breezes either steam or fire. $\frac{2}{3}$ of these dragons breeze fire, while $\frac{1}{2}$ of them breeze steam. How many dragons breeze both?

Solve in your notebook:

4. Show that ...

a). $2 \times \left(\frac{1}{6}x - \frac{3}{4} \right) + \left(2x + \frac{3}{2} \right) : 3 = x - 1$

b). $(x - w + \frac{1}{2}) \cdot 4 + (8w - 4x - 2) : 2 = 2x + 1$

5. For each equation find the set of its solutions:

a) $|y + 2| = 4$

b) $|y + 2| = -4$

c) $|x - 5| = 1$

d)* $|2x - 3| = 1$

6. Use appropriate diagrams to solve the equations:

a) $\frac{3}{4}x - \frac{1}{6} = \frac{1}{3}$

b)* $\frac{2}{x} - \frac{1}{3} = \frac{1}{6}$

7. A school orchestra of 48 students was assembling for a rehearsal. When the students arrived it turned out that $\frac{1}{4}$ of the students forgot their notes. Another $\frac{2}{3}$ of the students forgot their instruments. How many students were prepared for the rehearsal?

Answers:

5a: $\{-6, 2\}$

5b: $\emptyset$

5c: $\{4, 6\}$

5d: $\{1, 2\}$

6a: $x = \frac{2}{3}$

6b: $x = 4$

7. 4 students