

1. Calculate: $\frac{1\frac{1}{2} \times \frac{2}{7}}{\frac{3}{7} \cdot (\frac{1}{2} : \frac{1}{5})} =$

$$\frac{1}{2 + \frac{1}{3 + \frac{1}{4}}} =$$

2. Solve the mathematical riddles in which identical digits are replaced with identical letters:

a). $IF \times FI \times G = 2015$

b). $ON \times OFF = 2015$

3. Solve the equations:

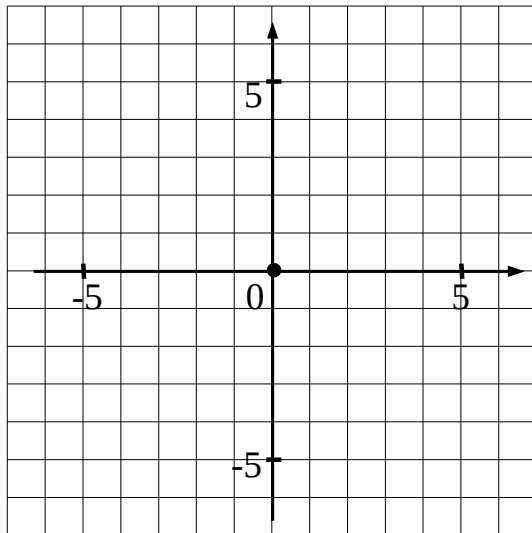
a). $\frac{2x-5}{1-3x} = 3$

b). $\frac{2}{2 + \frac{3}{x}} = \frac{2}{7}$

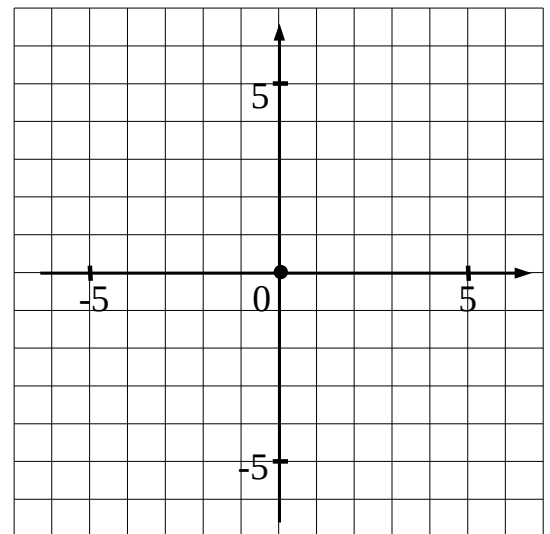
c). $\frac{2015}{63 + \frac{5}{x}} = 31$

4. Fill in the table and plot the graph for $y = |x|$ and $y = |x + 1|$.

x	-7	-5	-3	-1	0	1	3	5	7	9
y										



$$y = |x|$$



$$y = |x + 1|$$

x	-7	-5	-3	-1	0	1	3	5	7	9
y										

5. There are 3 points on a Cartesian plane: $A(-1\frac{1}{2}, 1)$, $B(\frac{1}{2}, 2)$, $C(2\frac{1}{2}, 4)$. Find the coordinates of the vectors ...

$$\vec{a} = \overrightarrow{AB} = (\quad , \quad)$$

$$\vec{b} = \overrightarrow{BC} = (\quad , \quad)$$

$$\vec{c} = \overrightarrow{AC} = (\quad , \quad)$$

$$\vec{a} + \vec{b} = (\quad , \quad)$$

$$\vec{a} + 2\vec{c} = (\quad , \quad)$$

$$\vec{c} - \vec{b} = (\quad , \quad)$$

6. Subtract 3D vectors $\vec{a} = (3, -1, 4)$ and $\vec{e} = (-1, 2, 1)$:

$$\vec{a} - \vec{e} = (\quad , \quad , \quad)$$