1. Calculate: $\dfrac{1\frac{1}{2}\times\frac{2}{7}}{\frac{3}{7}\cdot(\frac{1}{2}:\frac{1}{5})}=$ $\qquad\qquad$ $\dfrac{1}{2+\dfrac{1}{3+\frac{1}{4}}}=$

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

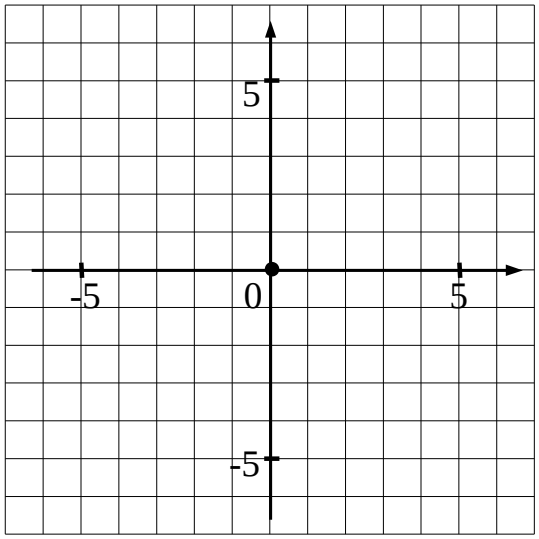
a). IF × FI × G = 2015
b). ON × OFF = 2015

3. Solve the equations:

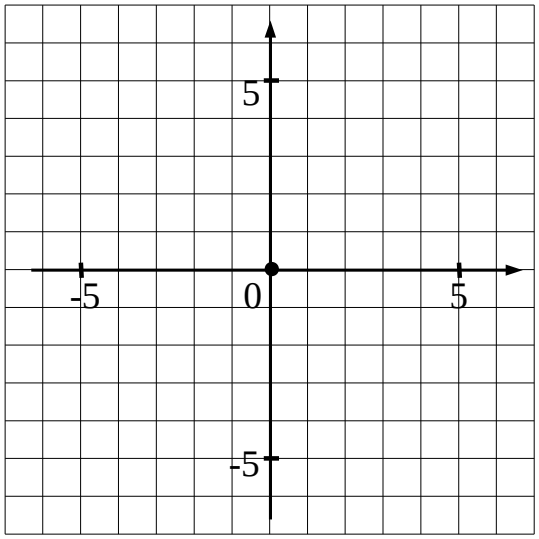
a). $\dfrac{2x-5}{1-3x}=3$ $\qquad$ ***b).*** $\dfrac{2}{2+\frac{3}{x}}=\dfrac{2}{7}$ $\qquad$ ***c).*** $\dfrac{2015}{63+\frac{5}{x}}=31$

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***(–1½, 1), ***B***(½, 2), ***C***(2½, 4). Find the coordinates of the vectors …

$\vec{a}=\overrightarrow{AB}=(\quad,\quad)$ $\qquad$ $\vec{b}=\overrightarrow{BC}=(\quad,\quad)$ $\qquad$ $\vec{c}=\overrightarrow{AC}=(\quad,\quad)$

$\vec{a}+\vec{b}(\quad,\quad)$ $\qquad$ $\vec{a}+2\vec{c}(\quad,\quad)$ $\qquad$ $\vec{c}-\vec{b}(\quad,\quad)$

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