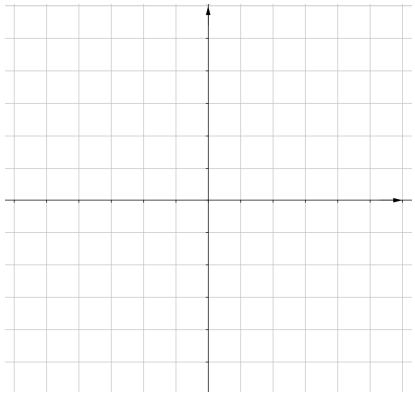
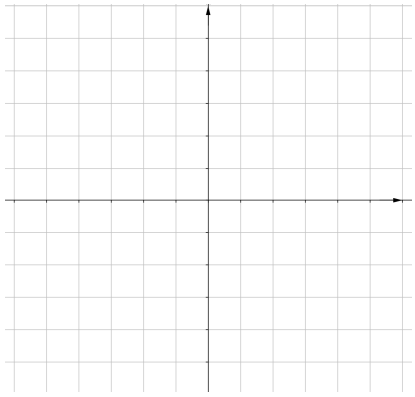
DETERMINING PARALLEL AND PERPENDICULAR LINES

➢ **Determine if the following lines are Parallel, perpendicular or neither by graphing them.**

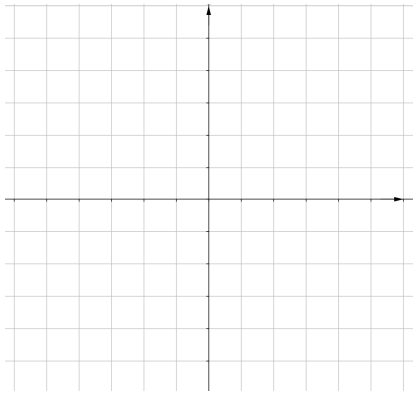
1) $x = -2$ $y = 3$



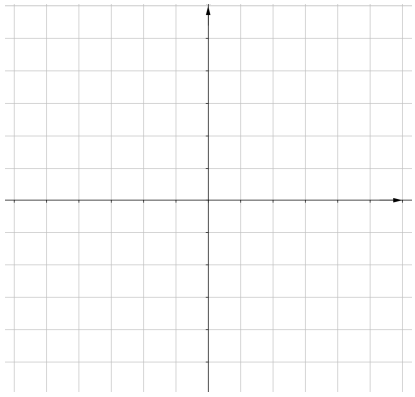
2) $x = 4$ $x = -4$



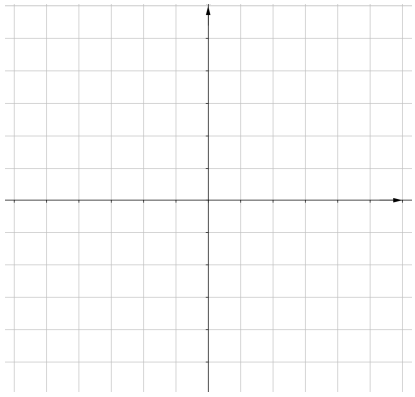
3) $y = \frac{2}{3}x - 4$ $y = -\frac{3}{2}x - 4$



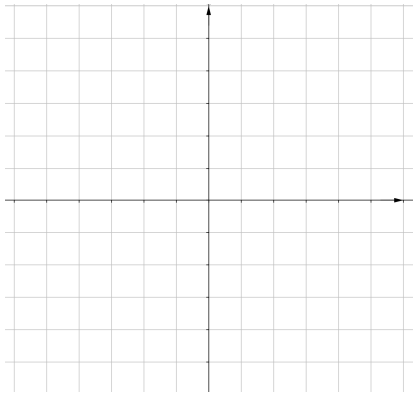
4) $y = 3x + 3$ $y = 3x - 4$



5) $y = 3$ $y = x$



6) $x - 4y = 2$ $4x + y = 8$



➢ **Determine if the following lines are parallel, perpendicular or neither by finding the slopes of the lines.**

7) The line that contains the points $(-3, 2)$ and $(4, -1)$ and the line that contains the points $(1, 3)$ and $(-2, -4)$.

8) The line that contains the points $(-5, 0)$ and $(0, 2)$ and the line that contains the points $(5, 1)$ and $(0, -1)$.

➢ **Find the equation of the line.**

9) Find the equation of the line that contains the point $(1, 1)$ and is parallel to the line $x = 4$

Equation:

10) Find the equation of the line that contains the point $(1, 1)$ and is perpendicular to the line $x = 4$

Equation:

11) Find the equation of the line that contains the point $(2, -5)$ and is perpendicular to the line $y = \frac{5}{2}x - 4$

Equation:

12) Find the equation of the line that contains the point $(2, -5)$ and is parallel to the line $y = \frac{5}{2}x - 4$

Equation: