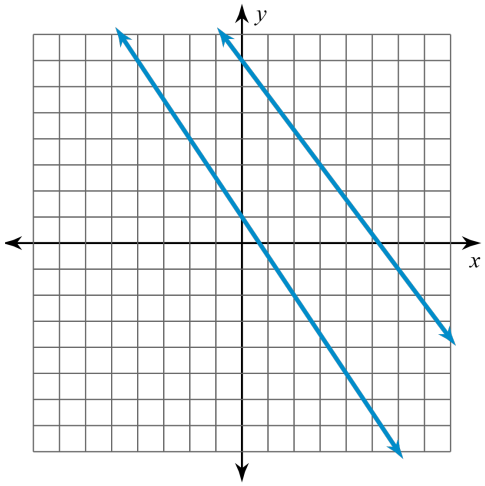
GUIDED NOTES (MODEL NOTES)

Are These Lines Parallel?

Determine if each pair of lines are or are not parallel. Explain your thinking.

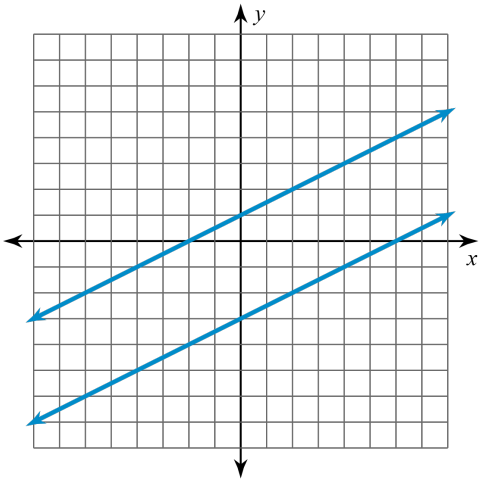
1)



The slopes of the lines are $-\frac{3}{2}$ and $-\frac{4}{3}$.

The slopes are not the same, so the lines are not parallel.

2)



The slopes of the lines are $\frac{1}{2}$ and $\frac{1}{2}$.

The slopes are the same, so the lines are parallel.

Writing Equations

Write an equation of the line that has the given properties.

3) The line passes through $(2, 1)$ and is parallel to $y = 3x + 5$.

$m = 3$, $point: (2, 1)$

$y - y_1 = m(x - x_1)$

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

$y - 1 = 3x - 6$

$y = 3x - 5$

4) The line passes through $(-1, 4)$ and is parallel to $y - 4 = -2(x - 3)$.

$m = -2$, $point: (-1, 4)$

$y - y_1 = m(x - x_1)$

$y - (4) = (-2)(x - (-1))$

$y - 4 = -2x - 2$

$y = -2x + 2$