Name : _____ Score : _____

Teacher : _____ Date : _____

Parallel, Perpendicular, and Intersecting Lines

Determine if the given pair of lines is parallel, perpendicular, or intersecting.

1) $y = \frac{3}{2}x - 16$ and $y = \frac{3}{2}x + 3$

$m = \frac{3}{2}$ $m = \frac{3}{2}$

Parallel b/c slopes are the same

Answer: ||

2) $y = -\frac{2}{3}x + 17$ and $-6x + 4y = -12$

$m = -\frac{2}{3}$

$m = \frac{6}{4} = \frac{3}{2}$

$+6x \quad +6x$

$\frac{4y}{4} = \frac{-12}{4} + \frac{6x}{4}$

$y = -3 + \frac{6}{4}x$

Answer: Perpendicular $m = \frac{6}{4}$

3) $y = -3x + 4$ and $y = \frac{1}{3}x + 3$

Answer: _____

4) $y = -x - 10$ and $y = -x + 4$

Answer: _____

5) $y = \frac{1}{2}x - 20$ and $-x + 2y = -20$

$m = \frac{1}{2}$

$+x \quad +x$

$\frac{2y}{2} = \frac{-20}{2} + \frac{1x}{2}$

$y = -10 + \frac{1}{2}x$ $m = \frac{1}{2}$

Answer: Parallel

6) $y = -\frac{7}{4}x + 3$ and $y = \frac{7}{4}x - 3$

$m = -\frac{7}{4}$ $m = \frac{7}{4}$

Intersect, but are not $\perp$

Answer: _____

7) $y = \frac{2}{3}x - 15$ and $-2x + 3y = 21$

Answer: _____

8) $y = -x - 11$ and $x - y = 12$

Answer: _____