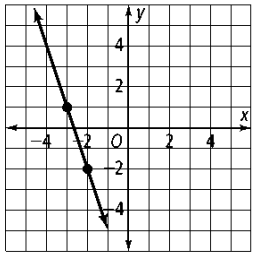
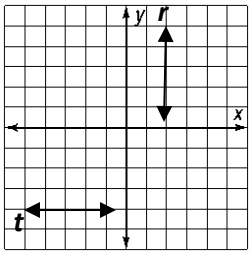
Name: _____ Geometry Lessons 3.7-3.8 Study Guide

Find the slope of the line passing through the given points or of the given line.

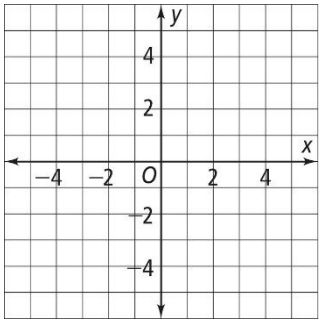
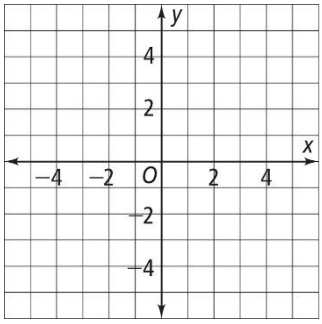
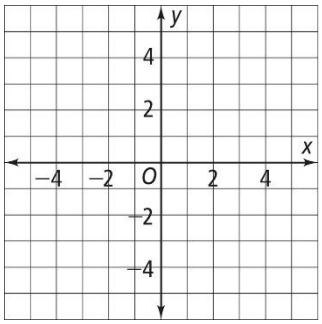
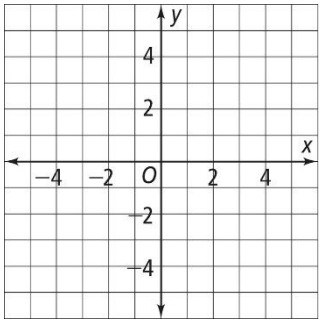
1) (2, 0), (–6, 8) **2)** (9, 1), (–9, –3) **3)** 

4) 

5)(–3, –1),$(-3, 8)$ 6**)** (8, 3), (4, 3) 7) $y = \frac{1}{5}x + 8$

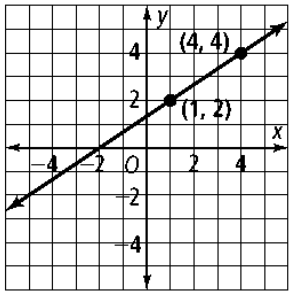
Graph each line.

8) $y = -\frac{2}{3}x - 2$ 9**)** $x - 4y = -12$ **10)** $y - 1 = \frac{1}{3}(x + 5)$ **11)** x = 2 and y = - 3

Use the given information to write an equation of each line in slope-intercept form.

12) slope–10, *y*-intercept –3 **13)** slope $\frac{3}{4}$, passes through (–8, 2) **14)**



15) passes through (–1, 8) and (5, –4) **16)** passes through (–2, 0) and (3, 10)

17) parallel to *y* = – 2*x* + 6 and through (8, 1) 18**)** parallel to *y* = $\frac{2}{3}$ *x* + 3 and through (0, 6)

19) parallel to $y = -\frac{3}{4}x + 9$ and through (8, 1)

20) perpendicular to $y = \frac{1}{2}x - 7$ and through $(0, -3)$

21) perpendicular to $y = 5x + 3$ and through $(2, 2)$

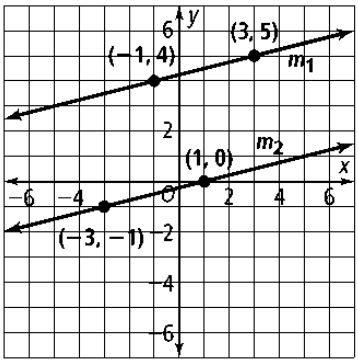
22) perpendicular to $y = -5x + 12$ and through $(-2, 1)$

23) The horizontal line through $(3, -4)$

24) The vertical line through $(3, -4)$

Determine a) whether lines m_1 and m_2 are parallel, perpendicular, or neither. b) Justify your answer.

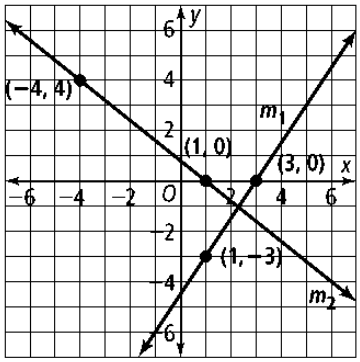
25)



a) ∥, ⊥ *or neither*: _____

b) Justification: _____

26)



a) ∥, ⊥ *or neither*: _____

b) Justification: _____

27) $m_1: 2y + 6x = 18$

$m_2: 12y - 4x = 24$

a) ∥, ⊥ *or neither*: _____

b) Justification: _____

28) $m_1: 4y - 3x = 20$

$m_2: 2y = \frac{3}{2}x + 4$

a) ∥, ⊥ *or neither*: _____

b) Justification: _____