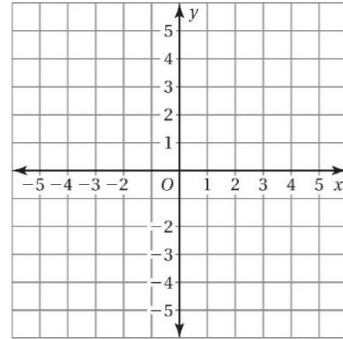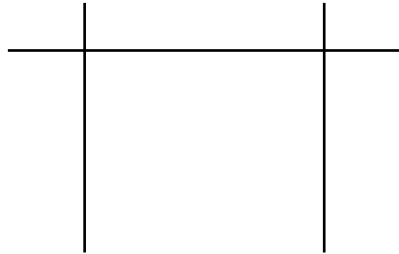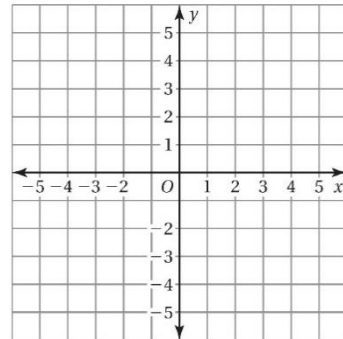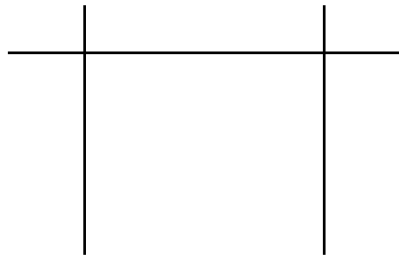Name: _____ Period: _____

Chapters 4 & 6 Review

Graph both linear equations on the coordinate plane on the right. Make sure you use an input/output table with at least 3 ordered pairs for each.
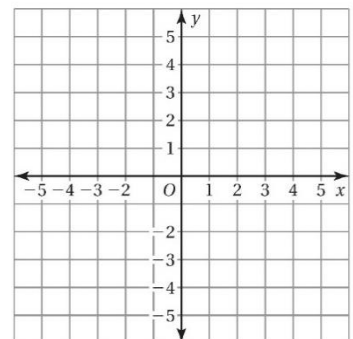
1) $y = 3x - 4$

2) $y = \dfrac{1}{2}x - 3$

Graph both of the equations on the coordinate plane on the right. You may make an input/output table if you wish.
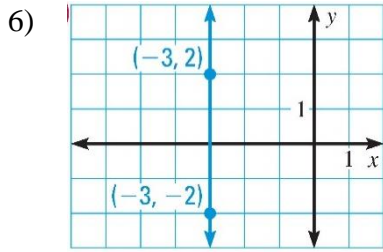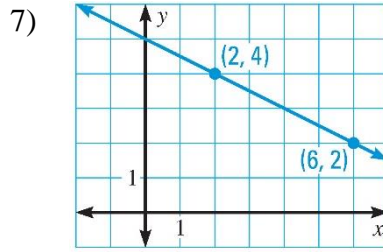
3) $y = -3$

4) $x = 1$

5) The slope of any line can be written as a ratio that represents its _____ over its _____.

Tell whether the slope of the line is positive, negative, zero, or undefined. Then find the slope if it exists.
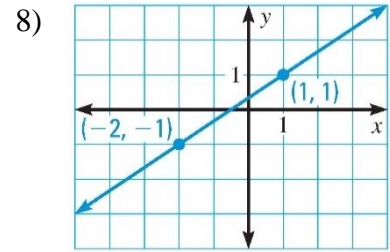
6)

(−3, 2)

(−3, −2)

Kind of slope: _____

$m =$ _____

7)

(2, 4)

(6, 2)

Kind of slope: _____

$m =$ _____

8)

(1, 1)

(−2, −1)

Kind of slope: _____

$m =$ _____

9) The slopes of parallel lines are the _____.

10) Find the slope of the line that passes through the points. Write your answer in simplest form.

a) (-1, 11) and (2, 10) $m =$ _____
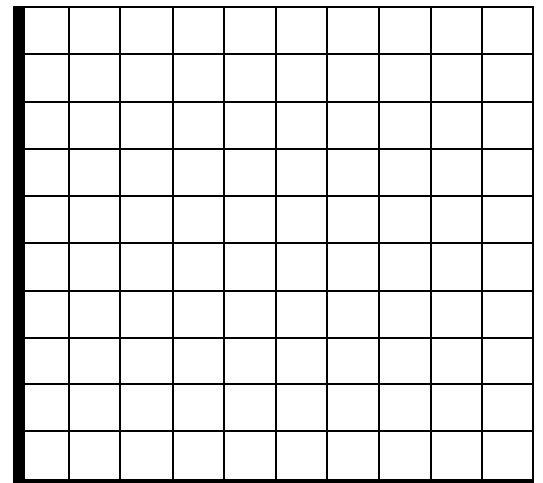
b) (-2, 0) and (4, 9) $m =$ _____

c) (-5, 2) and (-5, 7) $m =$ _____

d) (4, 6) and (-2, 6) $m =$ _____

11) Jenny wanted to buy a bunch of hot cocoas for her friends. The number y cocoas you get from x dollars is represented by the equation $y = 3x$.
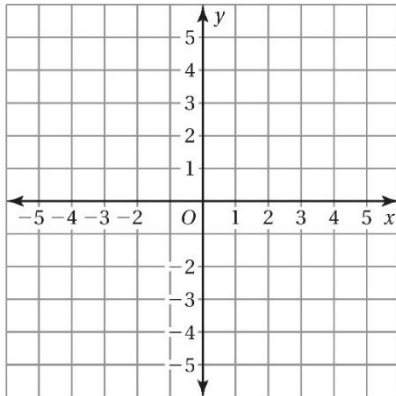
a) Make sure to:
   • Label you axis.
   • Use at least 4 ordered pairs.

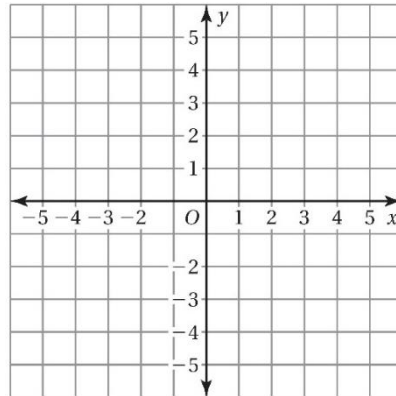b) Interpret what the slope means in this problem

Graph each equation using the slope and the *y*-intercept only.
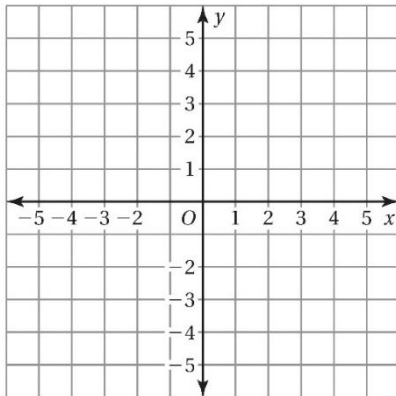
16) $y = -\dfrac{3}{2}x + 4$
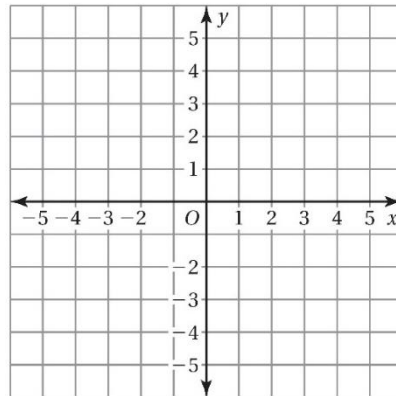

17) $y = -4x + 5$

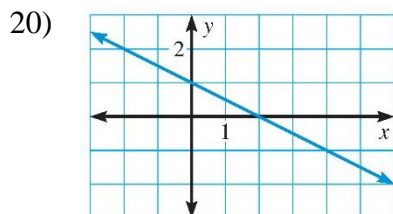Solve each equation in slope-intercept form. Then graph.
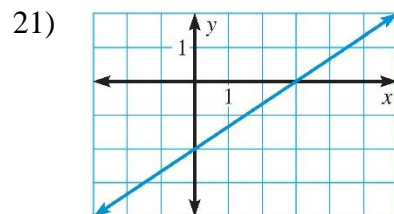
18) $2x + y = 3$

19) $6x - 3y = -9$

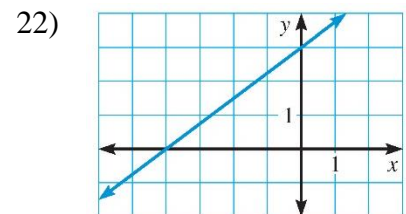Identify the *x*-intercept and the *y*-intercept of the graph.

20)

x-intercept : _____

y-intercept : _____

21)

x-intercept : _____

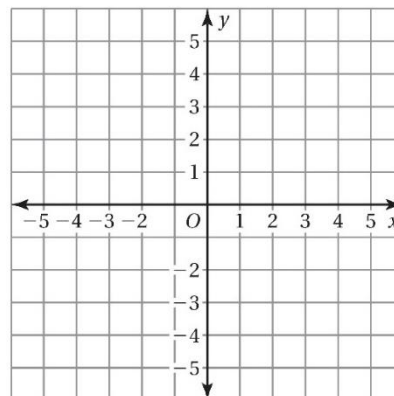*y*-intercept : _____

22)

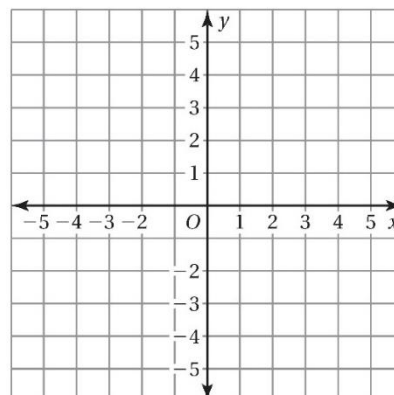*x*-intercept : _____

y-intercept : _____

Find the *x*-intercept and the *y*-intercept of each equation, and then graph it.
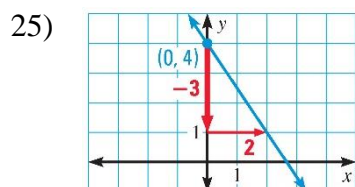
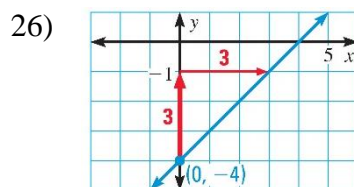23) $-4x + 5y = 20$

x-intercept : _____   *y*-intercept : _____

24) $6x - 3y = 12$

x-intercept : _____   *y*-intercept : _____

Write an equation of the line shown in slope-intercept form.

25)

_____

26)

_____

27)

_____
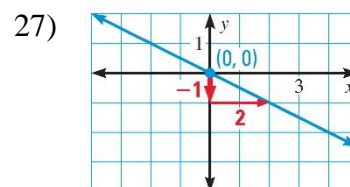
Write an equation of the line shown in slope-intercept form that passes through the points.

28) $(-4, -1), (0, 5)$

29) $(0, -3), (1, -5)$

Write in point-slope form an equation of the line that passes through the given point and has the given slope.

30) $(2, 2)$; $m = -1$

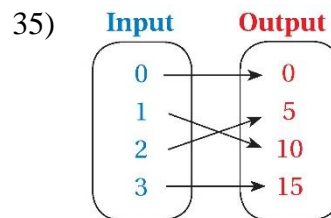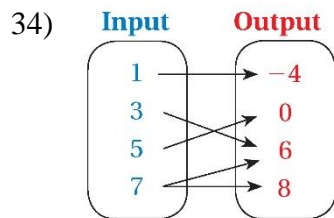31) $(-3, 5)$; $m = -\dfrac{5}{7}$

Write in slope-intercept form an equation of the line that passes through the given points.
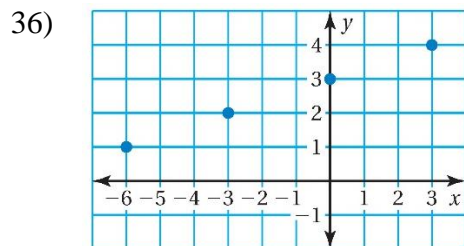(Clue: Is the *y*-intercept given?)

32) $(2, 1)$, $(3, 5)$

33) $(-1, 5)$, $(3, -3)$

Determine whether the relation is a function. **Explain**.

34)

Input	Output
1	−4
3	0
5	6
7	8

35)

Input	Output
0	0
1	5
2	10
3	15

Use the graph or table to write a linear function (equation) that relates *y* to *x*.

36)

37)

x	0	5	10	15
y	50	40	30	20