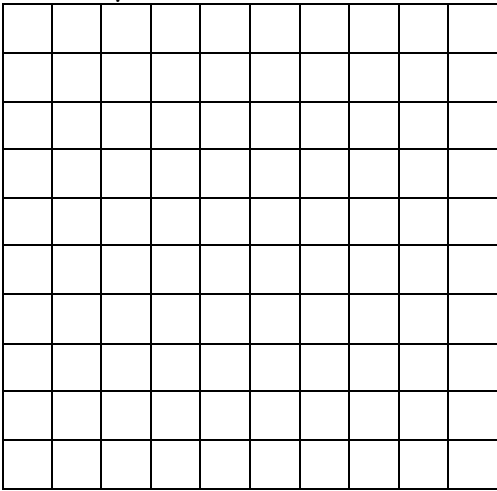Name: _____

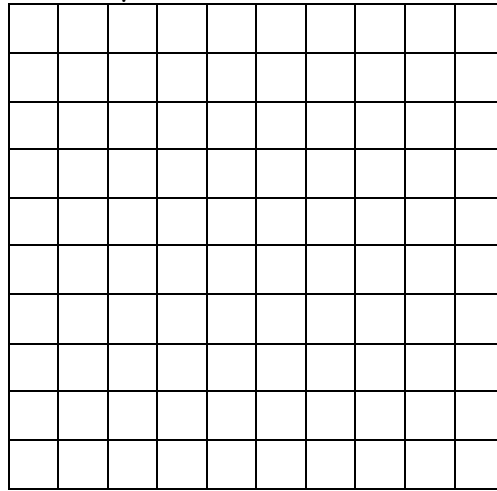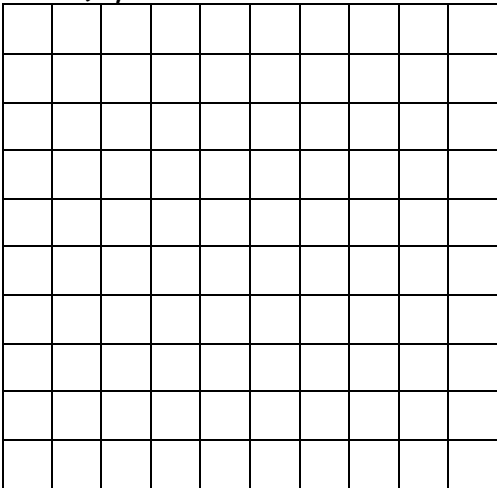# Linear Study Guide
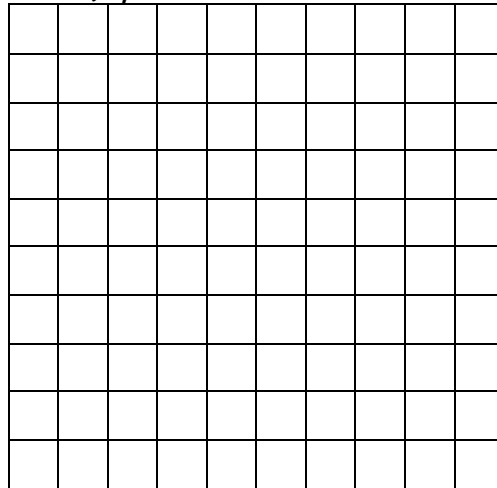
Graph the equation.

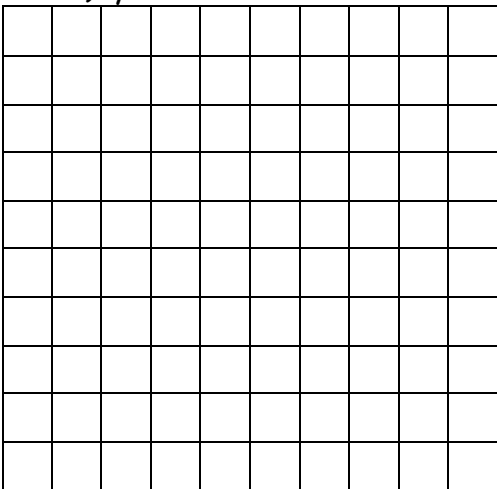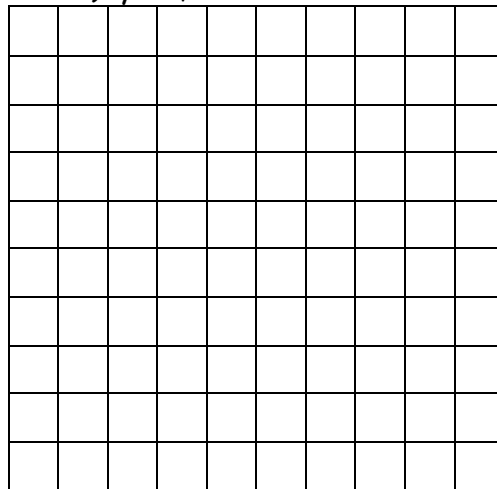1) $y = 2x + 3$

2) $y = \frac{1}{2}x - 4$
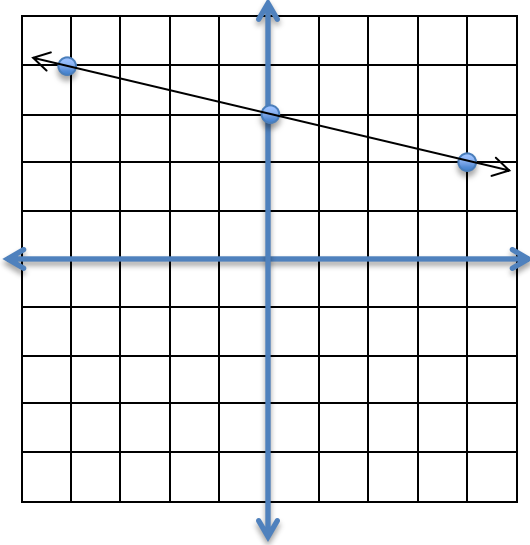
3) $y = -4x + 1$
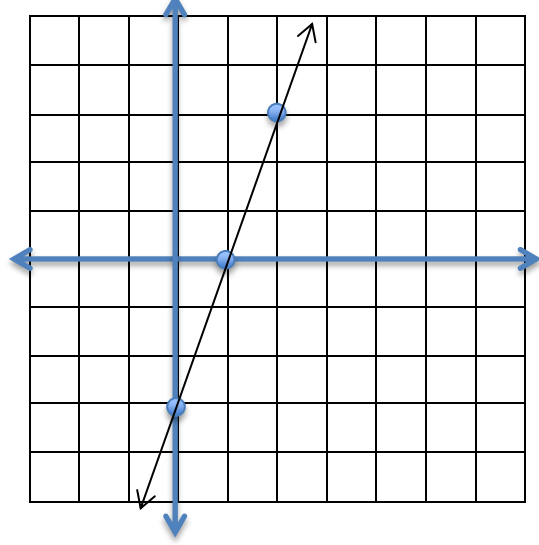
4) $y = -x - 2$

5) $y = 3x + 1$

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

Find the equation of the line in slope-intercept form (y=mx+b).

1) Equation: _____
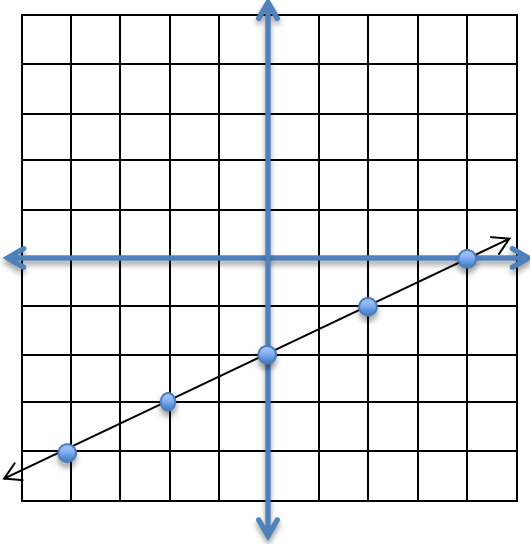
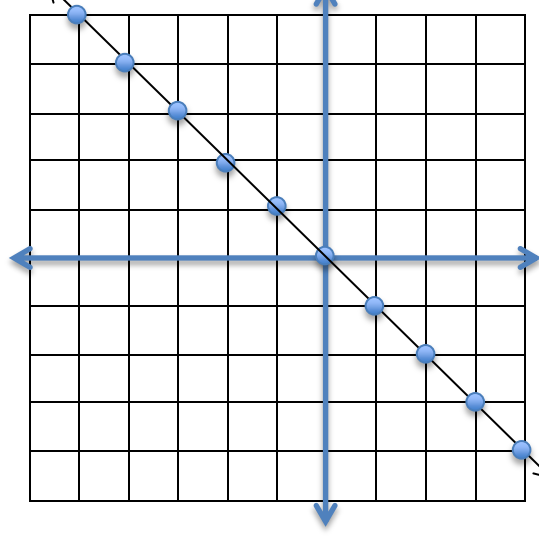2) Equation: _____
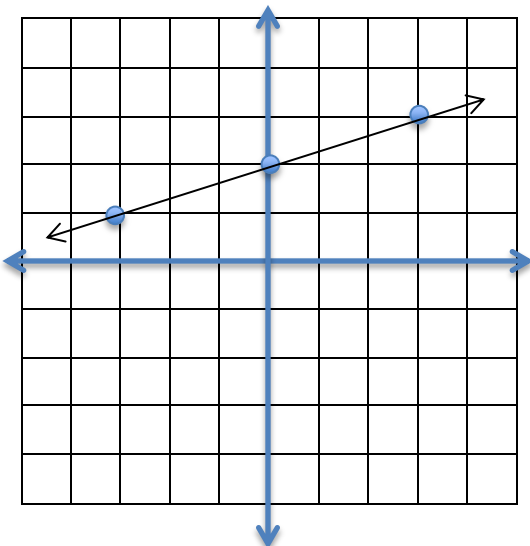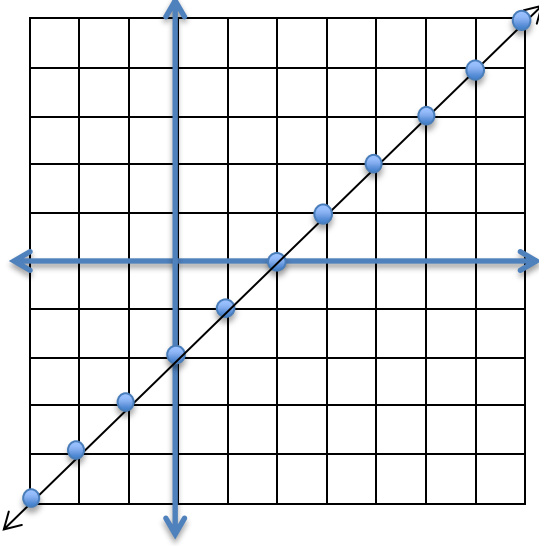
3) Equation: _____

4) Equation: _____

5) Equation: _____

6) Equation: _____

Find the slope of the line that passes between the two points.

1) (4, 4) and (5, 6)   3) (3, 1) and (6, 2)

2) (1, -1) and (3, -5)   4) (5, 6) and (10, 8)

Find the slope of the line in the table.

1)

x	y
0	7
1	4
2	1
3	-2

2)

x	y
-4	8
-2	9
0	10
2	11

3)

x	y
-5	0
0	20
5	40
10	60

Write the equation of the line in slope-intercept form (y=mx+b) given the slope and the y-intercept.

1) m = 6 and b = 4   2) m = 2/3 and b = -1   3) m = -1 and b = 3

Write the equation of the line in slope-intercept form (y=mx+b) given the slope and a point.

1) m = 3 and (2, 5)   2) m = ½ and (4, 7)   3) m = -4 and (3, -2)

Are the following linear or not?

1) $y = 5x - 3$ 2) $y = 2x^3 + 5x^2 - 1$

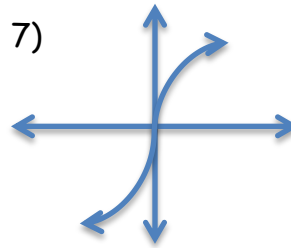3) $y = (x + 3)(x - 10)$ 4) $y = 2x - 5x$

5)

x	y
1	1
2	8
3	27
4	64

6)

x	y
1	-9
2	-5
3	-1
4	3

7)

8)