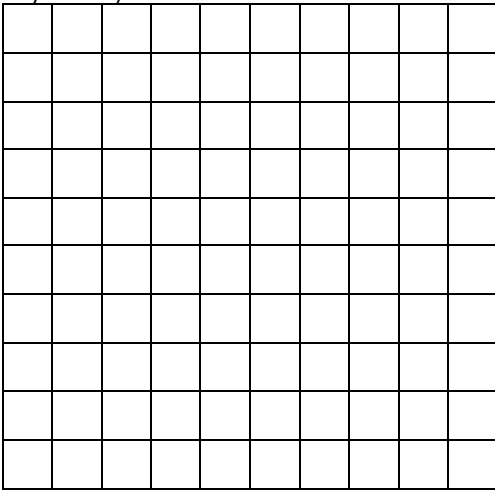


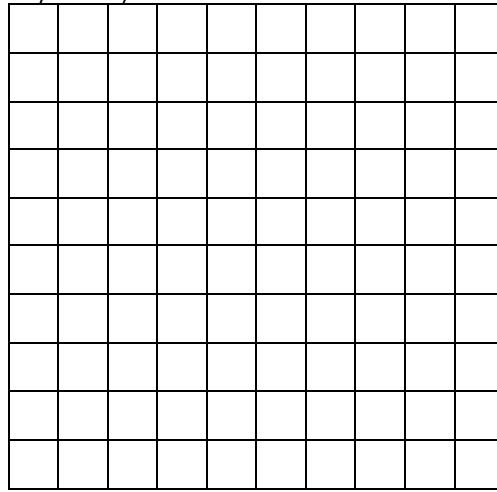
# Linear Functions Study Guide

Graph the equation.

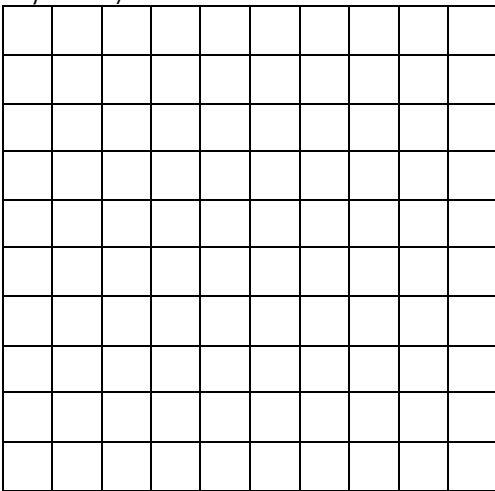
1)  $y = 2x + 3$



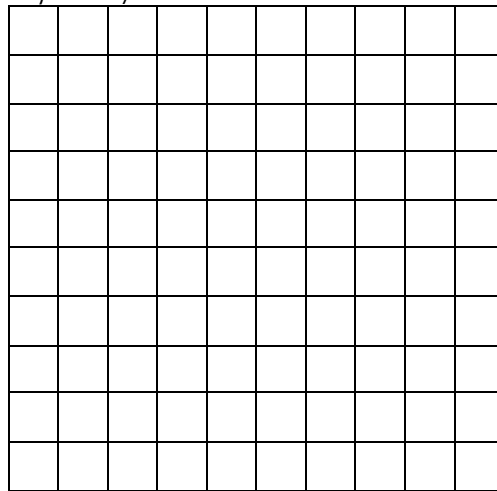
2)  $y = \frac{1}{2}x - 4$



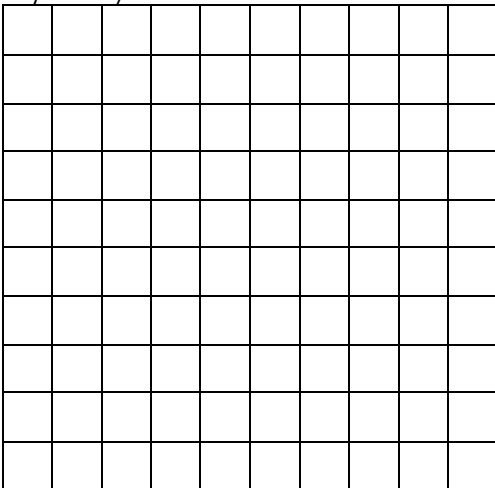
3)  $y = -4x + 1$



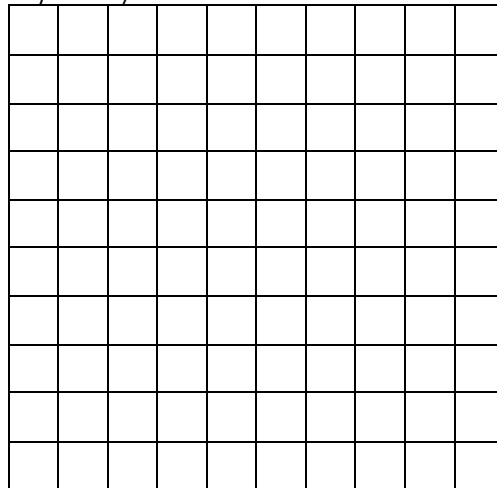
4)  $y = -x - 2$



5)  $y = 3x + 1$

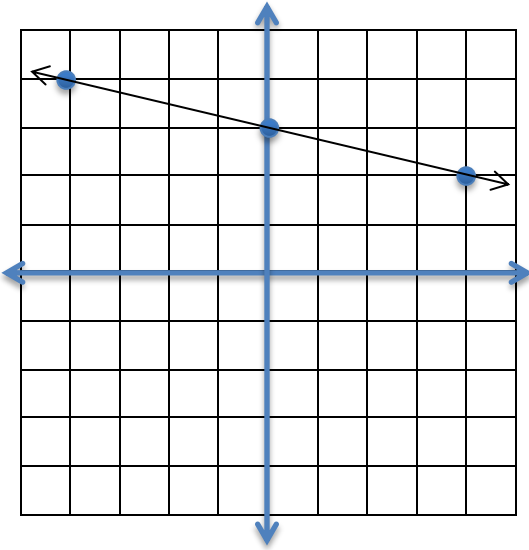


6)  $y = \frac{1}{4}x - 3$

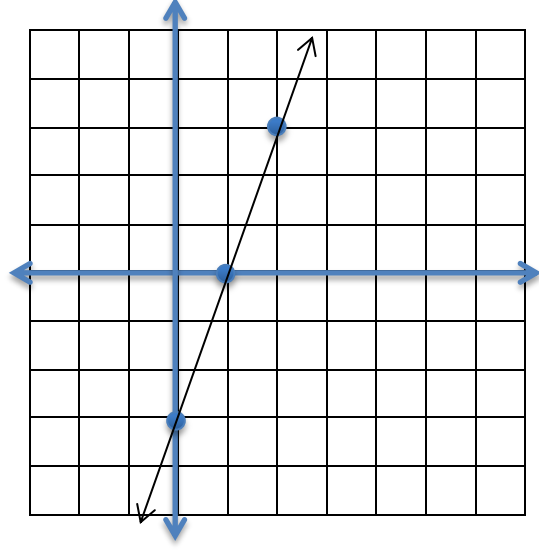


Find the equation of the line in slope-intercept form ( $y=mx+b$ ).

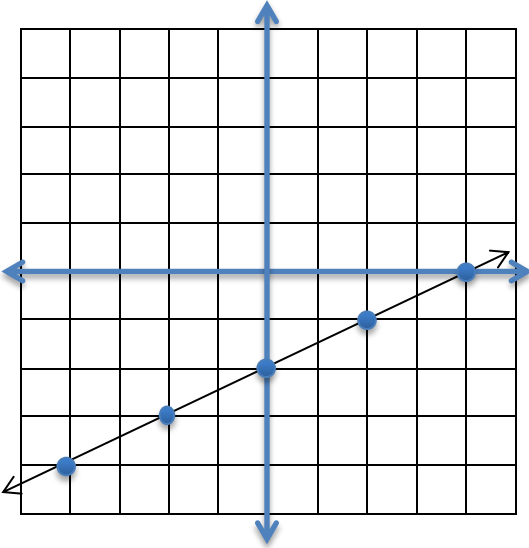
7) Equation: \_\_\_\_\_



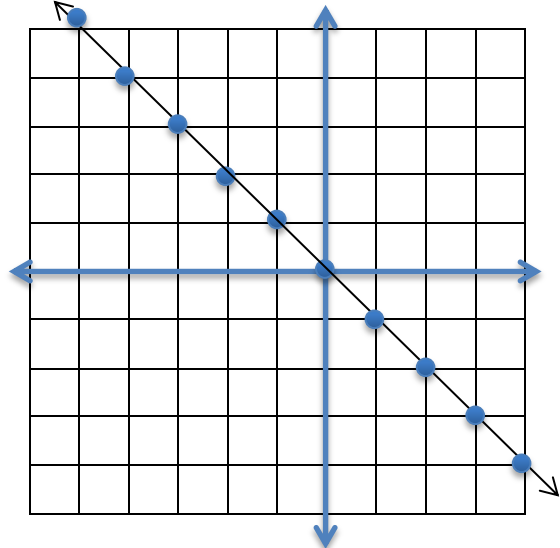
8) Equation: \_\_\_\_\_



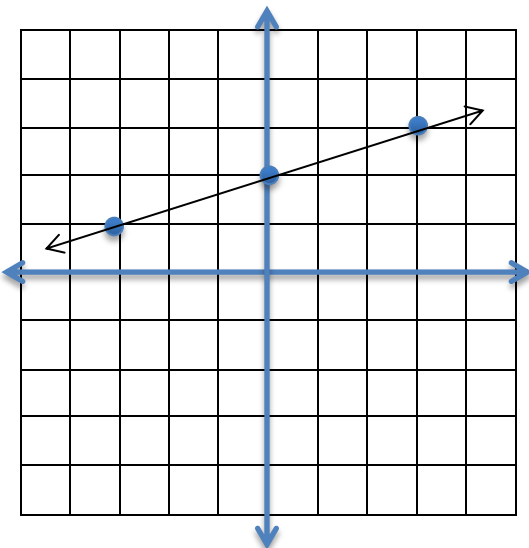
9) Equation: \_\_\_\_\_



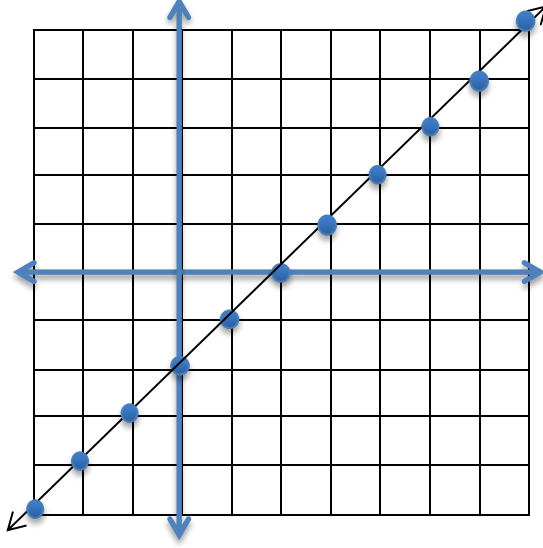
10) Equation: \_\_\_\_\_



11) Equation: \_\_\_\_\_



12) Equation: \_\_\_\_\_



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

13) (4, 4) and (5, 6)

14) (1, -1) and (3, -5)

15) (3, 1) and (6, 2)

16) (5, 6) and (10, 8)

Find the slope of the line in the table.

17)

x	y
0	7
1	4
2	1
3	-2

18)

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

19)

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.

20)  $m = 6$  and  $b = 4$

21)  $m = 2/3$  and  $b = -1$

22)  $m = -1$  and  $b = 3$

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

23)  $m = 3$  and (2, 5)

24)  $m = 1/2$  and (4, 7)

25)  $m = -4$  and (3, -2)

Are the following linear or not?

26)  $y = 5x - 3$

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

28)  $y = (x + 3)(x - 10)$

29)  $y = 2x - 5x$

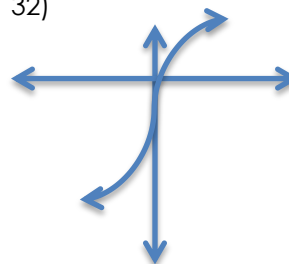
30)

x	y
1	1
2	8
3	27
4	64

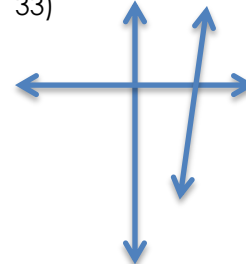
31)

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

32)

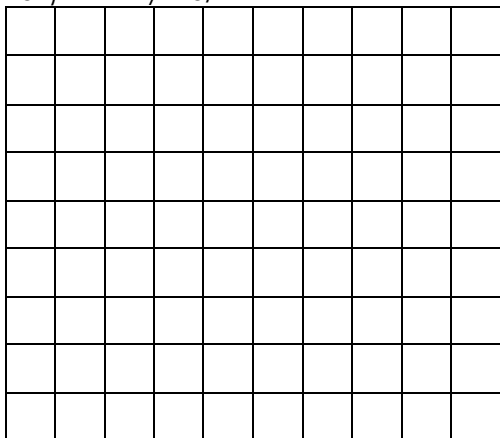


33)

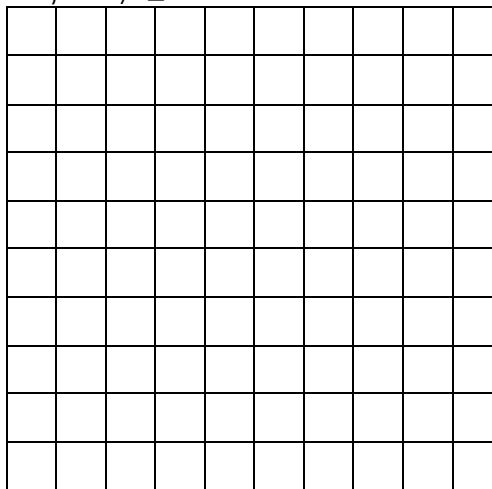


**Graph the 2-variable inequalities.**

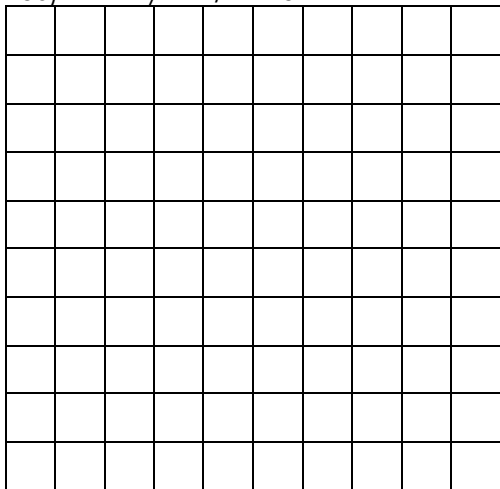
34)  $y < \frac{3}{4}x - 1$



35)  $y \geq 3x + 2$



36)  $y > -\frac{1}{2}x - 3$



37)  $y \leq -x - 4$

