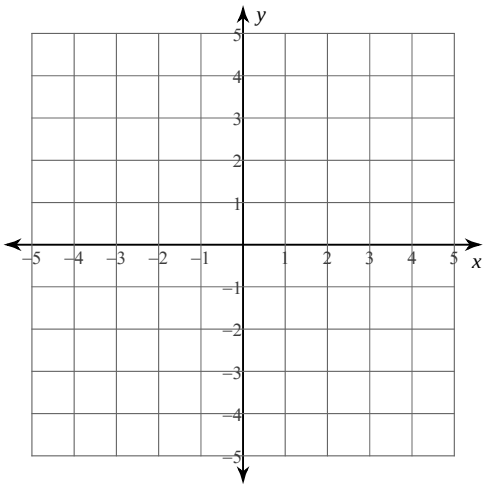
Alg Name_____

Sem1 - PRACTICE TEST 3 (Graphs & Linear Equations)

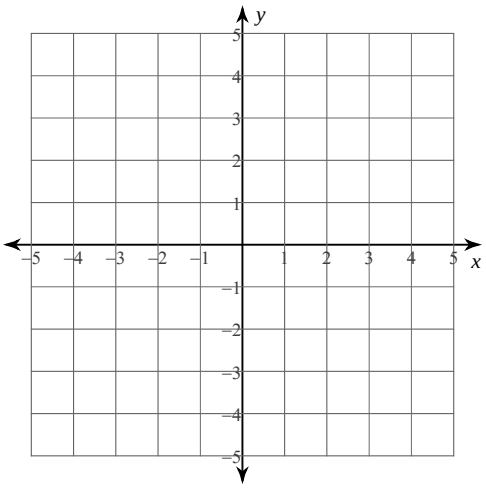
Period____

Plot each point.

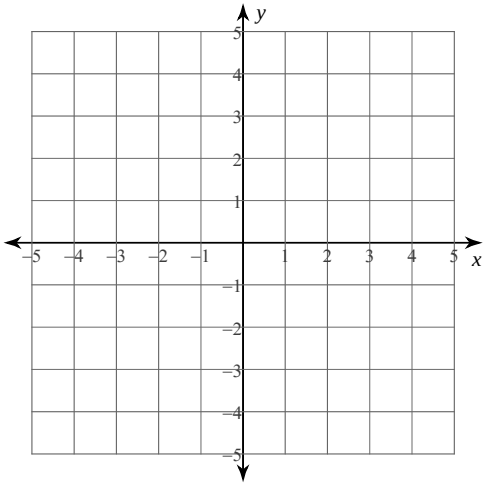
1) $S(-4, 4)$ $T(-1, 0)$ $U(2, 3)$



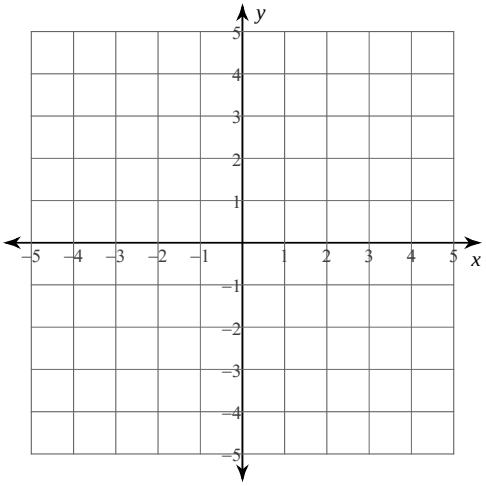
2) $P(-4, 5)$ $Q(4, 0)$ $R(3, 3)$



3) $C(-1, 1)$ $D(1, 4)$ $E(-2, -5)$

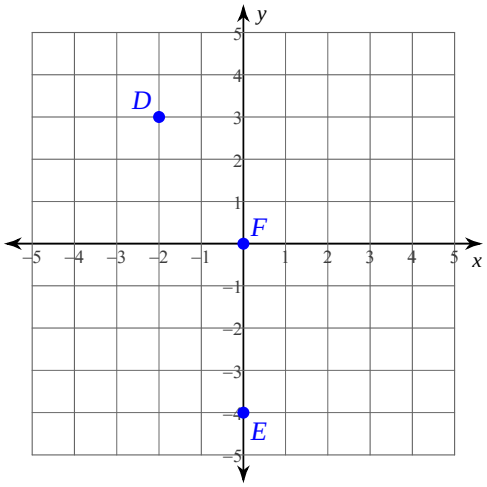


4) $A(4, 0)$ $B(-1, -2)$ $C(-1, 3)$

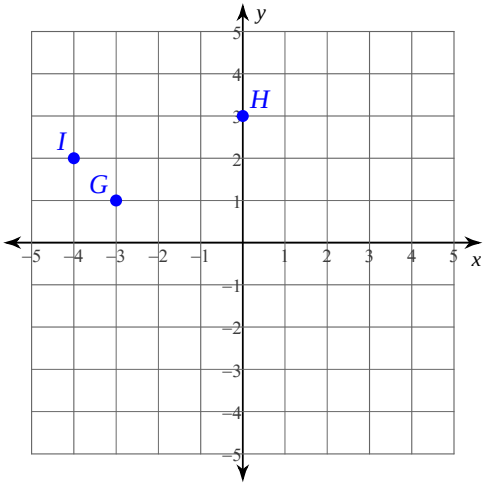


State the coordinates (the x & y) of each point.

5)

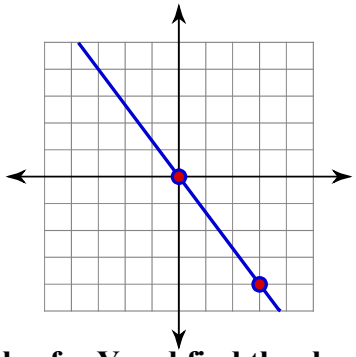


6)

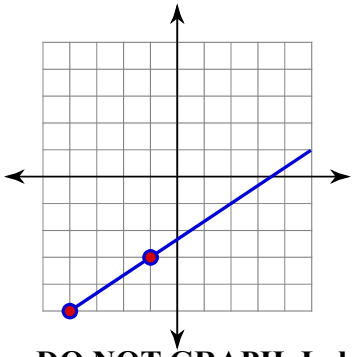


Find the slope of each line.

7)



8)



Solve for Y and find the slope and y-intercept of each line. DO NOT GRAPH. Label slope as "m" and label y-intercept as "b"

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

10) $y = x + 3$

11) $y = -1$

12) $2x - 5y = 5$

13) $x + 5y = 0$

14) $x - 4y = -16$

15) $x + y = 1$

16) $2x + 3y = -12$

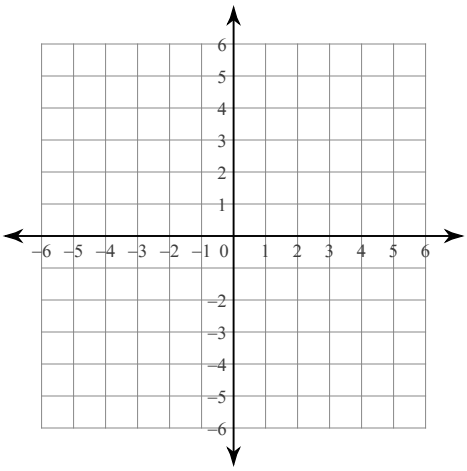
Use SLOPE FORMULA to find the slope of each line.

17) $(6, -5), (-19, -13)$

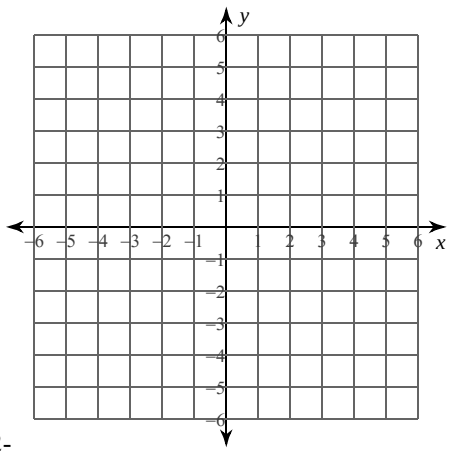
18) $(-6, 15), (13, 10)$

List X&Y intercepts & sketch graph using X&Y intercepts. USE ONLY THOSE 2 POINTS.

19) $y = x - 2$

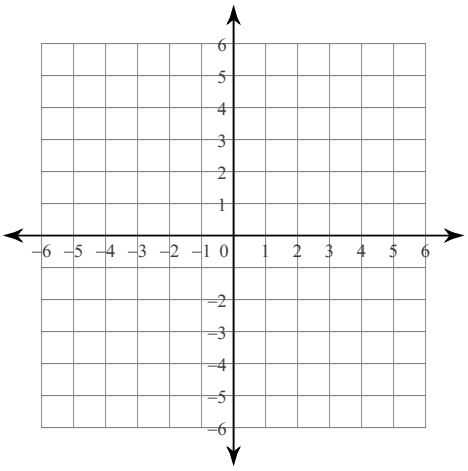


20) $2x + y = -4$

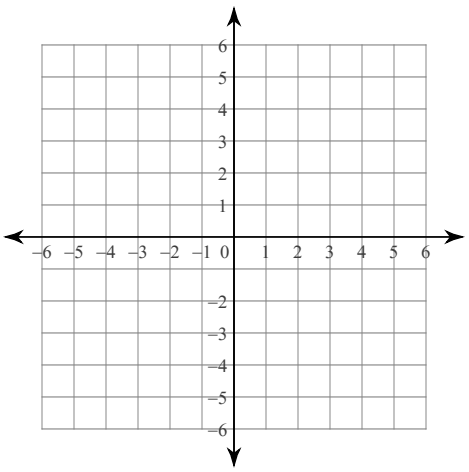


NO T-Tables!!! Sketch the graph of each line using only SLOPE (m) & Y-intercept (b).

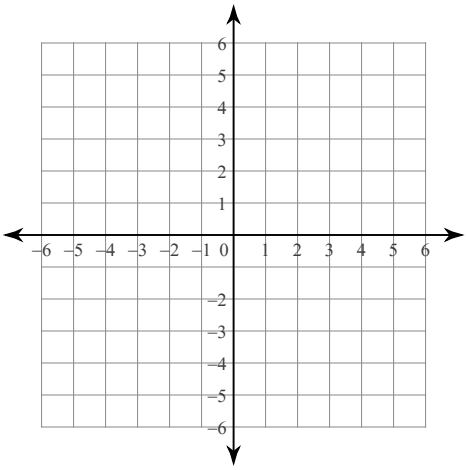
21) $y = -\frac{3}{4}x + 1$



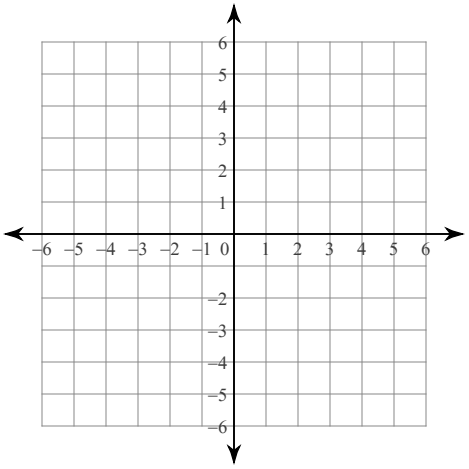
22) $y = 5x$



23) $x - 4y = -12$



24) $x = 5$



Write slope-intercept form of the equation (y=mx+b) of the line through the given point & slope.

25) through: $(-5, 4)$, slope = -2

26) through: $(5, 1)$, slope = $-\frac{3}{5}$

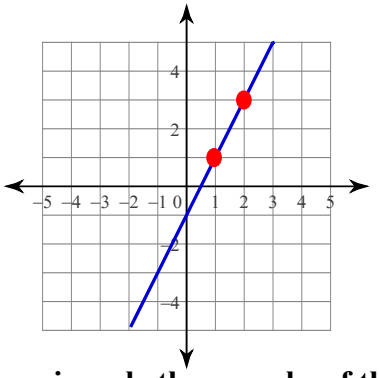
Write the slope-intercept form of the equation (y=mx+b) of the line through the given points.

27) through: $(0, -1)$ and $(1, 3)$

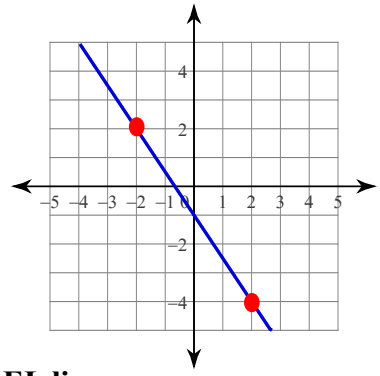
28) through: $(1, 0)$ and $(2, -4)$

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

29)



30)



Determine whether graphs of the equations are PARALLEL lines.

31) $y = -4x + 1$
$y = -4x - 1$

32) $y = -2x + 3$
$y = 2x - 1$

33) $y = \frac{1}{2}x - 3$
$y = \frac{7}{2}x + 3$

34) $y = 4x + 2$
$-4x + y = -3$

Determine whether graphs of the equations are PERPENDICULAR lines.

35) $y = 5x + 1$
$y = -\frac{1}{5}x - 3$

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

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

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

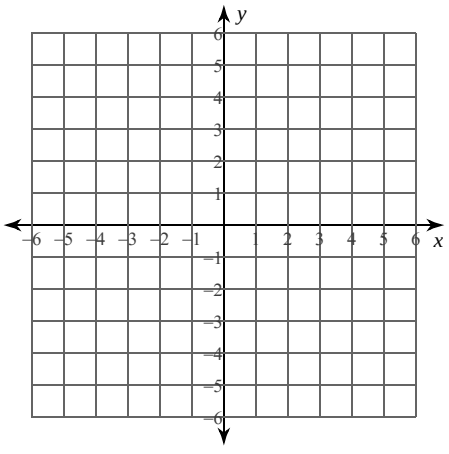
Write equation in "y=mx+b" form for the line containing given point & perpendicular to given line.

39) through: $(-1, -4)$, perp. to $y = -\frac{1}{8}x - 4$

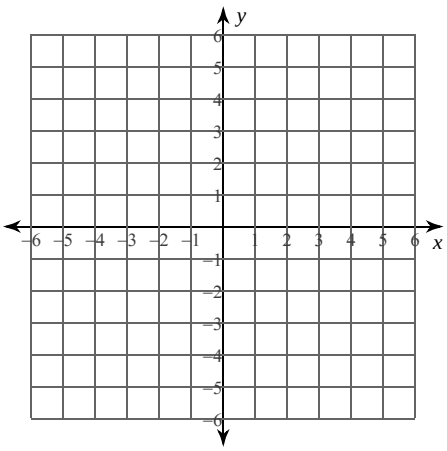
40) through: $(2, 0)$, perp. to $2x - 3y = 9$

Sketch the graph of each linear inequality.

41) $-y < -\frac{3}{2}x + 2$

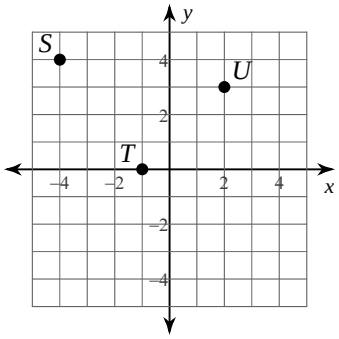


42) $x + 2y \le 4$



Answers to Sem1 - PRACTICE TEST 3 (Graphs & Linear Equations)

1)



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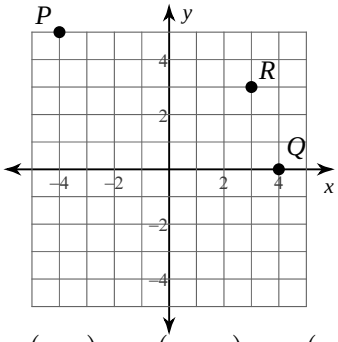
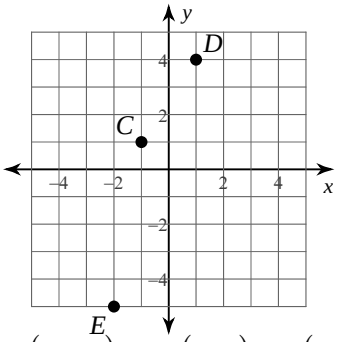
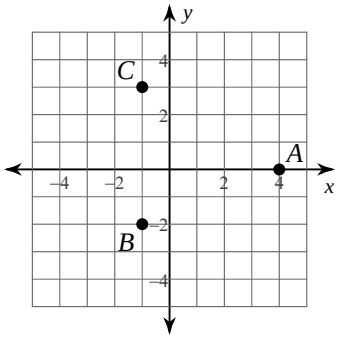


3)



4)



5) $F(0, 0)$ $E(0, -4)$ $D(-2, 3)$

6) $G(-3, 1)$ $H(0, 3)$ $I(-4, 2)$

7) $-\frac{4}{3}$

8) $\frac{2}{3}$

9) $m = \frac{1}{3}$; $b = -4$

10) $m = 1$; $b = 3$

11) $m = 0$; $b = -1$

12) $m = \frac{2}{5}$; $b = -1$

13) $m = -\frac{1}{5}$; $b = 0$

14) $m = \frac{1}{4}$; $b = 4$

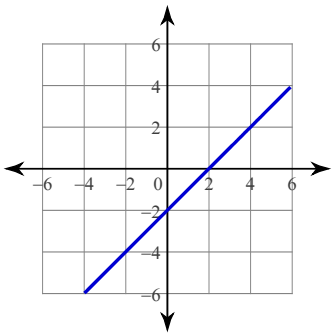
15) $m = -1$; $b = 1$

16) $m = -\frac{2}{3}$; $b = -4$

17) $\frac{8}{25}$

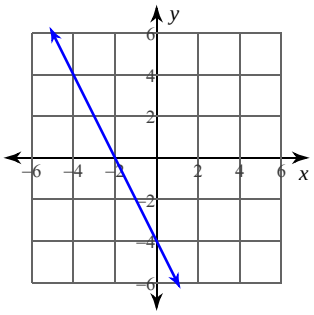
18) $-\frac{5}{19}$

19)



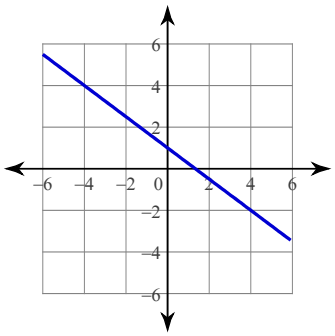
x	y
2	0
0	-2

20)

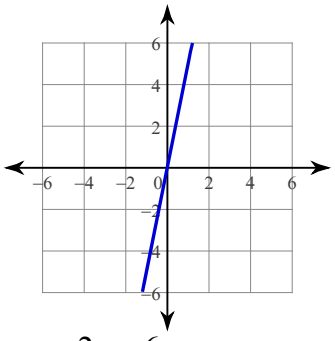


x	y
-2	0
0	-4

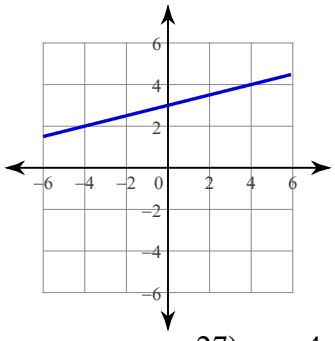
21)



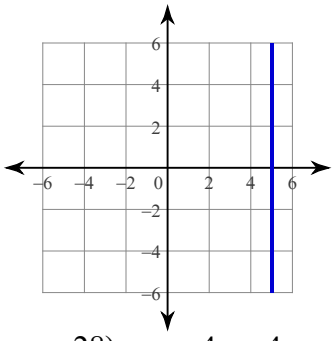
22)



23)



24)



25) $y = -2x - 6$

26) $y = -\frac{3}{5}x + 4$

27) $y = 4x - 1$

28) $y = -4x + 4$

29) $y = 2x - 1$

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

31) YES

32) NO

33) NO

34) YES

35) YES

36) NO

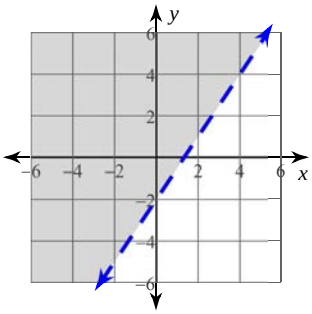
37) YES

38) NO

39) $y = 8x + 4$

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

41)



42)