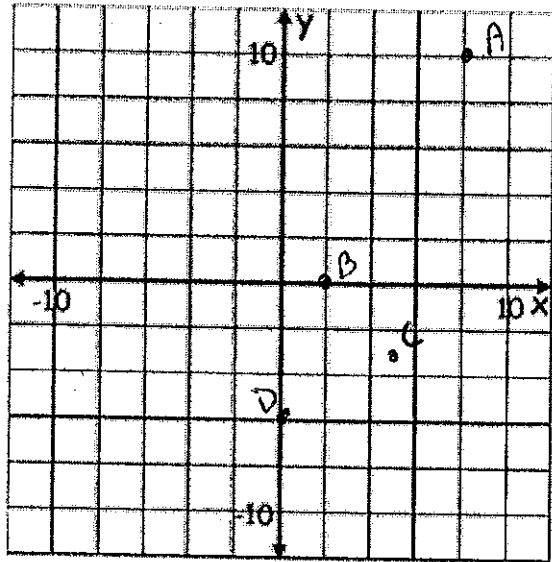
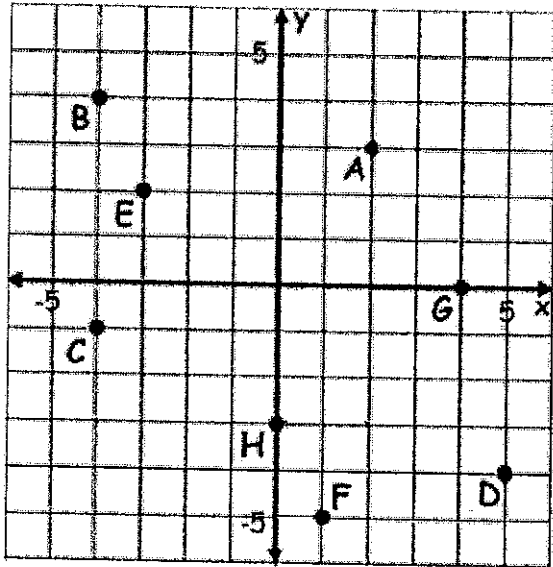


Name Key

Unit 8 Study Guide



Write the coordinates of each point.

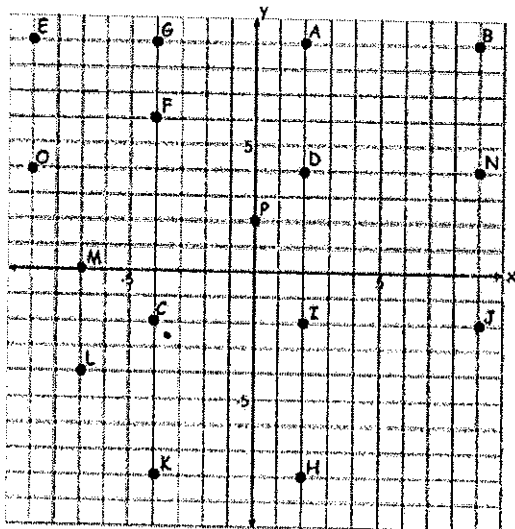
Plot each point on the coordinate plane.

1) A (2, 3)	2) F (1, -5)	5) A(8, 10)	6) B(2, 0)
3) H (0, -3)	4) E (-3, 2)	7) C(5, -3)	8) D(0, -6)

Name the quadrant of axis that contains each point.

9) (-7, 0) x-axis	10) (-7, 3) II	11) (0, 5) y-axis	12) (-1, -5) III
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Find the Distance



13) J and I 7	14) D and I 6
15) C and K 6	16) C and F 8

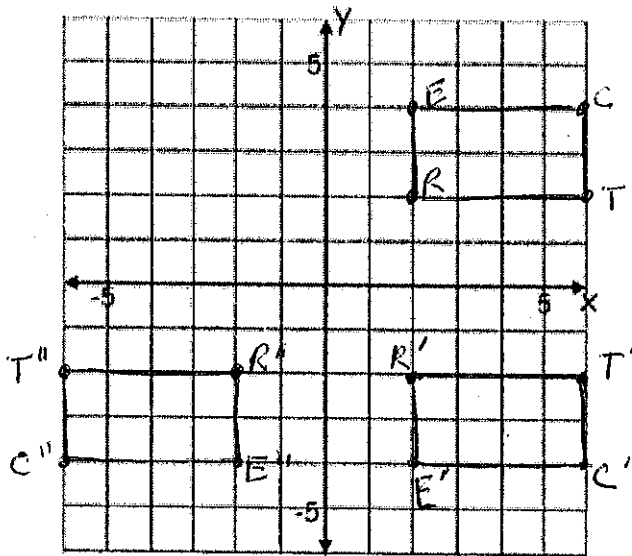
(6,6) (-3,6)

(-4,0) (0,0)

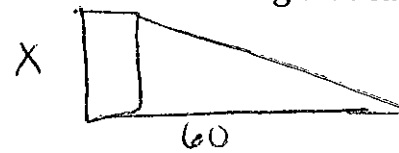
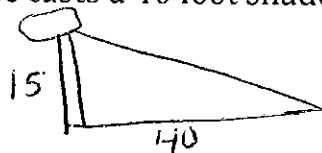
14	11
17) A giraffe walked from (6, 8) to (6, 6) to (-3, 6). How far did it walk?	18) A leopard leaped from (7, 0) to (-4, 0) to (0, 0). How far did it leap?
23	15

19) Reflect over the x-axis, then over the y-axis.

Graph Rectangle RECT with vertices: R (2, 2), E (2, 4), C (6, 4), T (6, 2)	
Reflect pre-image over the x-axis:	Reflect new image over the y-axis:
R' (2, -2)	R'' (-2, -2)
E' (2, -4)	E'' (-2, -4)
C' (6, -4)	C'' (-6, -4)
T' (6, -2)	T'' (-6, -2)



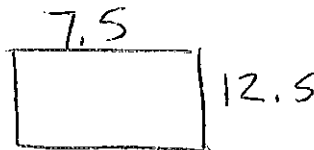
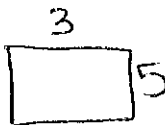
20) A 15 foot tree casts a 40 foot shadow. How tall is a building that casts a 60 foot shadow?



$$\frac{15}{40} = \frac{X}{60}$$

22.5 ft

21) Emmy is enlarging a 3x5 inch photo by a scale factor 2.5. What would the perimeter of the larger photo?



40 in = P

22) John has two job offers. He wants to take the job with the highest pay. Company A is shown in the graph. Company B will use the equation $P = 10.50h$, where p =pay and h =hours.

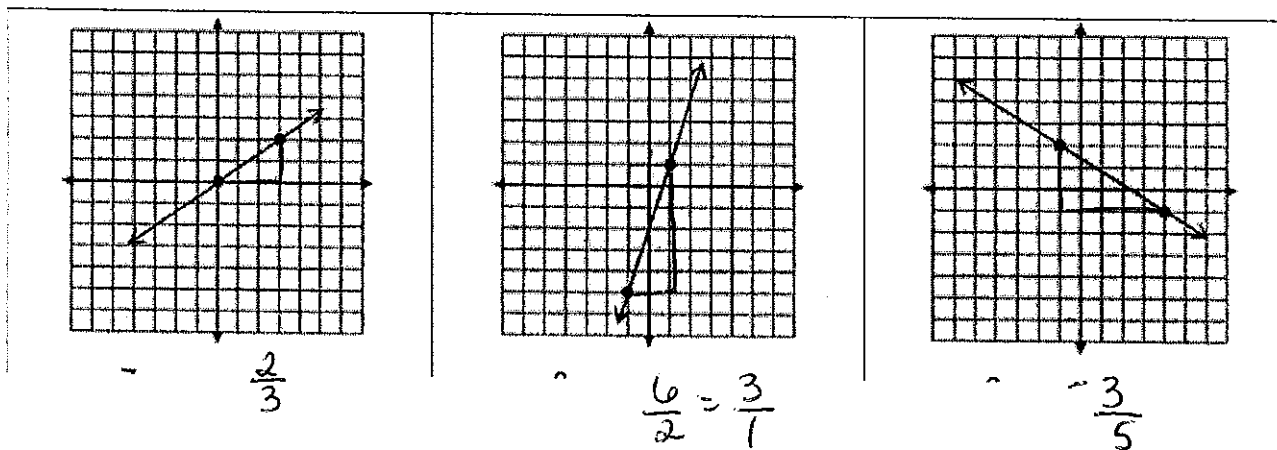
How much would John make with company A for 25 hours?

23) Based on the equation, what is the constant of proportionality?

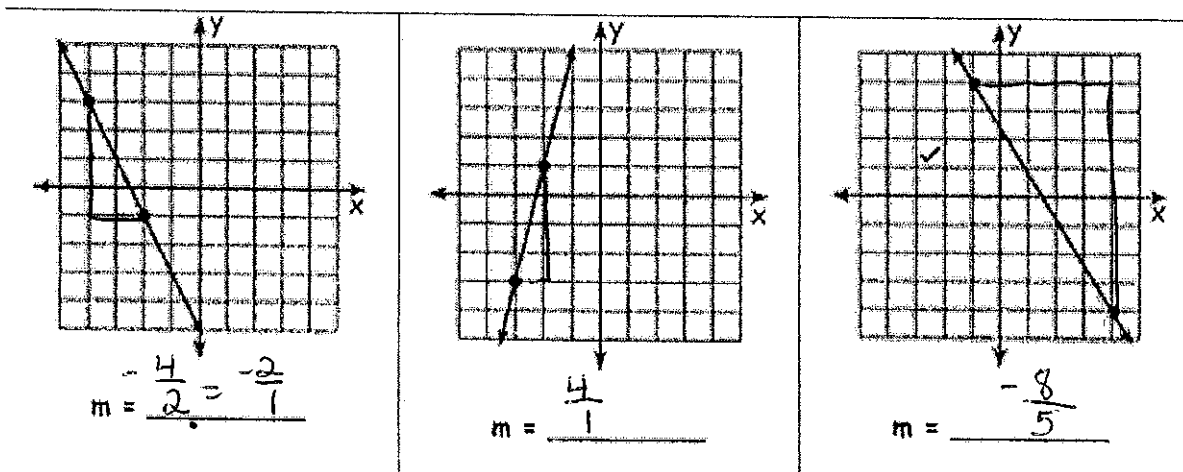
$$10.50$$

24) Which company would pay the most?

25-27) Determine the Slope of the Line



28-30) Find the Slope.



$$-\frac{8}{5}$$

31-36)

<p>(7, 1) and (7, 8)</p> $\frac{8-1}{7-7} = \frac{7}{0}$ <p>m = <u>undefined</u></p>	<p>(-2, 2) and (3, -3)</p> $\frac{-3-2}{3-(-2)} = \frac{-5}{5}$ <p>m = <u>-1</u></p>	<p>(-5, 4) and (-1, 11)</p> $\frac{11-4}{-1-(-5)} = \frac{7}{4}$ <p>m = <u>$\frac{7}{4}$</u></p>
<p>(1, 2) and (3, 6)</p> $\frac{6-2}{3-1} = \frac{4}{2}$ <p>m = <u>2</u></p>	<p>(2, 6) and (4, 0)</p> $\frac{0-6}{4-2} = \frac{-6}{2}$ <p>m = <u>-3</u></p>	<p>(8, -4) and (-6, -4)</p> $\frac{-4-(-4)}{-6-8} = \frac{0}{-14}$ <p>m = <u>0</u></p>

37-39) $y = 3x$

x	1	2	3	4	5
y	3	6	9	12	15

(1,3)(2,6)

$$\frac{6-3}{2-1} = \frac{3}{1}$$

m = 3

~~y = 3x~~

x	10	20	30	40	50
y	45	40	35	30	25

(10,45)(20,40)

$$\frac{40-45}{20-10} = \frac{-5}{10}$$

m = $-\frac{1}{2}$

x	-2	1	4	7	10
y	2	3	4	5	6

(-2,2)(1,3)

$$\frac{3-2}{1-(-2)} = \frac{1}{3}$$

m = $\frac{1}{3}$

x	y
-4	6
-2	6
0	6
2	6
4	6

(0,6)(2,6)

$$\frac{6-6}{2-0} = \frac{0}{2}$$

m = 0

x	y
-6	-4
-5	-9
-4	-14
-3	-19
-2	-24

(-6,-4)(-5,-9)

$$\frac{-9-(-4)}{-5-(-6)} = \frac{-5}{1}$$

m = -5

x	y
5	2
5	4
5	6
5	8
5	10

(5,2)(5,4)

$$\frac{4-2}{5-5} = \frac{2}{0}$$

m = undefined

Write the equation of the line in slope intercept form.

40) $2x - 3y = 6$

$$\begin{aligned} 2x - 3y &= 6 \\ +3y &+3y \\ \hline 2x &= 3y + 6 \\ -3y &-3y \\ \hline 2x - 6 &= 3y \end{aligned}$$

41) $4x + 7y = -14$

$$\begin{aligned} 4x + 7y &= -14 \\ +4x &+4x \\ \hline 7y &= 4x - 14 \\ \div 7 &\div 7 \\ \hline y &= \frac{4}{7}x - 2 \end{aligned}$$

$$\begin{aligned} 2x - 6 &= 3y \\ \div 3 &\div 3 \\ \hline \frac{2}{3}x - 2 &= y \\ y &= \frac{2}{3}x - 2 \end{aligned}$$

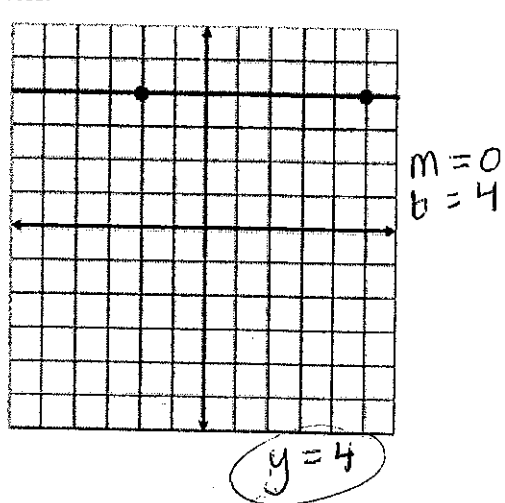
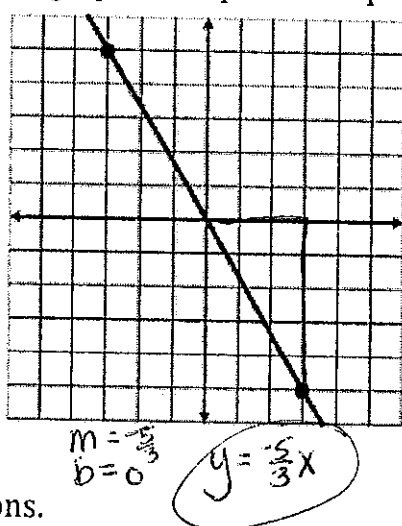
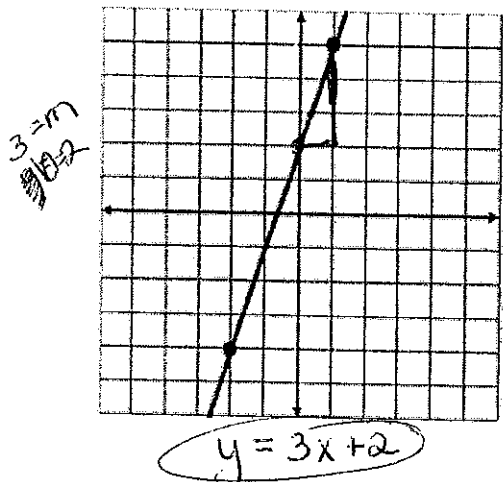
42) Slope: 2, y-Intercept (0,-4) $y = 2x - 4$

43) Slope $\frac{1}{4}$, y-intercept 5 $y = \frac{1}{4}x + 5$ $y = \frac{x}{4} + 5$

44) $m = 3$, passes through point (8,1) $y = mx + b$
 $1 = 3(8) + b$
 $1 = 24 + b$
 $b = -23$ $y = 3x - 23$

45) $m = \frac{1}{3}$, passes through point (-3, 7) $y = mx + b$
 $7 = \frac{1}{3}(-3) + b$
 $7 = -1 + b$
 $b = 8$
 $y = \frac{1}{3}x + 8$

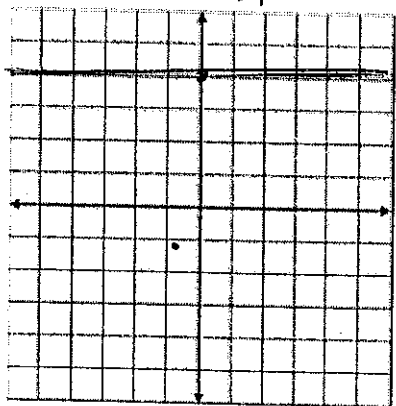
46-49) Write the equation of the graph in slope intercept form.



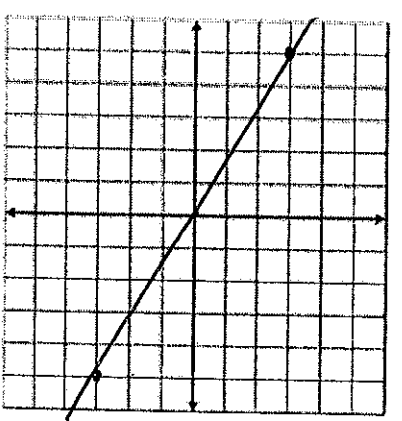
Graph the Lines of the Equations.

50) $y = 4$

x	y
0	4
1	4
2	4



51) $y = \frac{5}{3}x$



52) $y = -6x - 3$

