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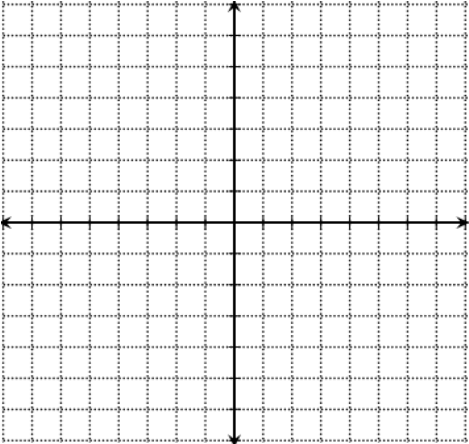
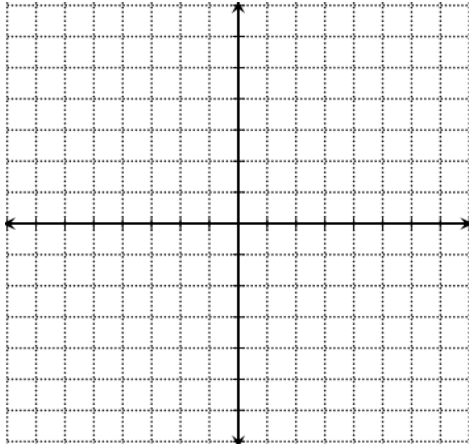
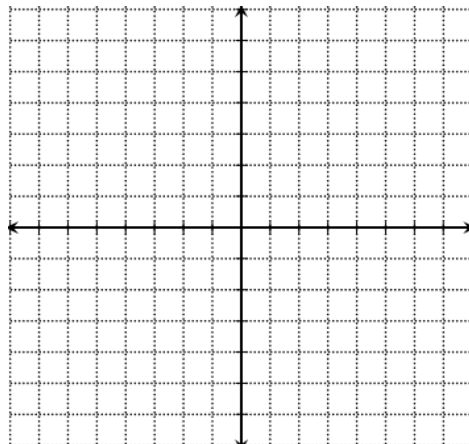
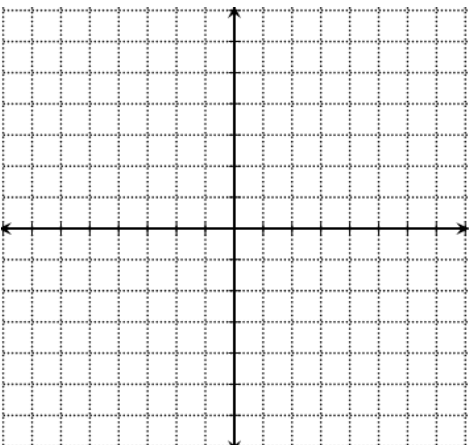
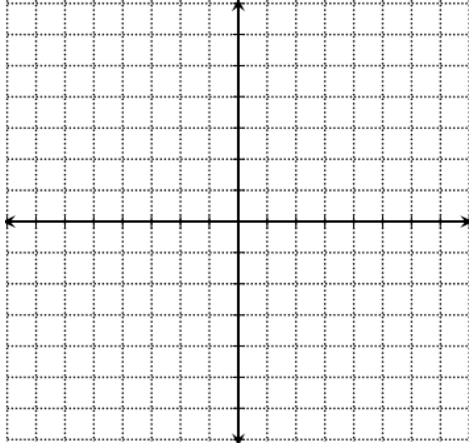
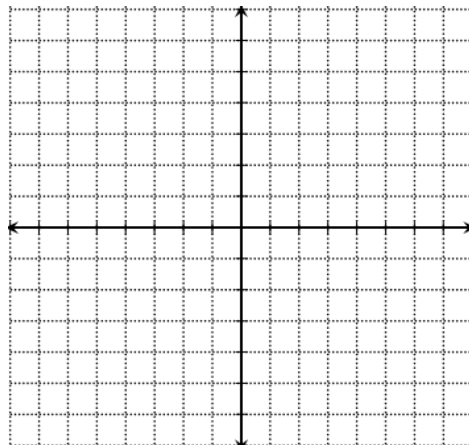
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Math 8/9H Section 7.3 Graphing Lines with Intercepts

1. For each of the line equations below, find the coordinates of the "x" and "y" intercepts

a) $3x - 4y = 12$ $x_{\text{int}} = \underline{\hspace{1cm}}$ $y_{\text{int}} = \underline{\hspace{1cm}}$	b) $5x - 0.125y = 3$ $x_{\text{int}} = \underline{\hspace{1cm}}$ $y_{\text{int}} = \underline{\hspace{1cm}}$	c) $4x - 3y - 24 = 0$ $x_{\text{int}} = \underline{\hspace{1cm}}$ $y_{\text{int}} = \underline{\hspace{1cm}}$	d) $4x - 7y + 18 = 2$ $x_{\text{int}} = \underline{\hspace{1cm}}$ $y_{\text{int}} = \underline{\hspace{1cm}}$
e) $4x - 3y + 8 = y - 1$ $x_{\text{int}} = \underline{\hspace{1cm}}$ $y_{\text{int}} = \underline{\hspace{1cm}}$	f) $\frac{3x}{8} - \frac{7y}{2} + 0.5 = 0$ $x_{\text{int}} = \underline{\hspace{1cm}}$ $y_{\text{int}} = \underline{\hspace{1cm}}$	g) $0.\bar{6}x - 0.\bar{16}y = 0.5$ $x_{\text{int}} = \underline{\hspace{1cm}}$ $y_{\text{int}} = \underline{\hspace{1cm}}$	h) $13x - 26y = -78$ $x_{\text{int}} = \underline{\hspace{1cm}}$ $y_{\text{int}} = \underline{\hspace{1cm}}$

2. Graph the following lines given the equation

a) $2x + 3y = 12$ 	b) $2x - y + 4 = 0$ 	c) $3x - 6y = 12$ 
d) $4x - 6y - 8 = 1$ 	e) $2x - 4y - 9 = 0$ 	f) $\frac{2}{3}x + \frac{4}{9}y = x - \frac{2}{3}$ 

3. Given the two points on the line, find the equation of the line in the form of: $ax + by + c = 0$ and $y = mx + b$

a) (6,14) (-4,-1)	b) (5,-1) (-5,3)	c) (-2,-28) (4,20)
d) (4,-10) (-1,7.5)	e) (3,22) (-5,-36)	f) (6,-6.25) (-5,-6.25)
g) (4,0) (0,7)	h) (0,-10) (-5,0)	i) (4.5,0) (0,7.5)

4. Given that each pair of line equations are parallel, what is the value of "k"?

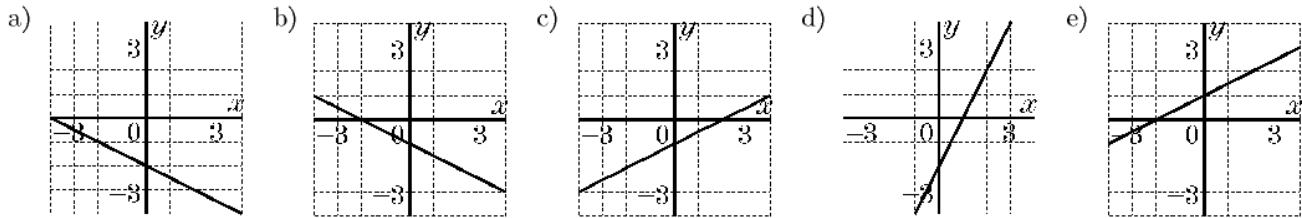
a) $2x - 3y + 12 = 0$ $kx - 9y + 9 = 0$	b) $20y - 15x - 40 = 0$ $\frac{4}{3}y = kx + 8$
c) $y = -0.6x + 4$ $ky = -3x + 2$	d) $x = -0.875$ $kx - 7 = 0$

5. Given each equation on the left, match it with the correct slope on the right

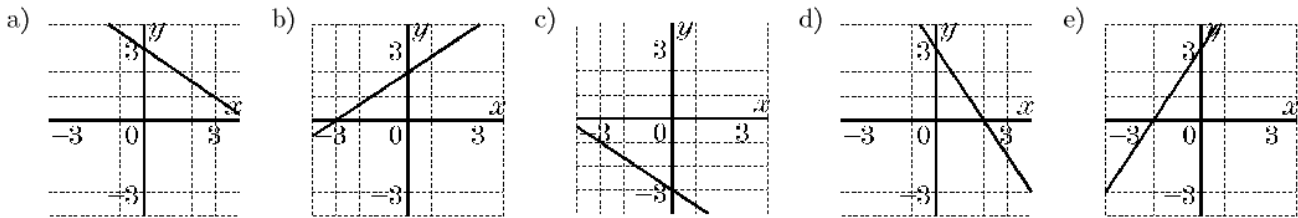
a) $0 = 2x - 3y + 2$	b) $0 = 3x - 8y + 32$		i) $m = 0.\overline{18}$	ii) $m = 0.\overline{72}$
c) $1.5(x + y) = \frac{3x}{2} + 4$	d) $11y + 8x + 27 = 0$		iii) $m = \frac{4}{6}$	iv) $m = 0$
e) $5.5y - x = 22$	f) $0.4y + x + 1.2 = 0$		v) $m = 0.375$	vi) $m = \frac{-5}{2}$

6. Given that the line equation $2x + ky = 6$ has a slope of -0.75 , what is the value of 'k'?

7. Which of the following lines has a slope of -0.5 ?



8. Which of the following is the graph of $2x + 3y = 9$?



9. If a line has a positive x-intercept and a negative y-intercept, then the slope of the line must be:

- a) Positive b) Negative c) Zero d) Undefined e) Unknown

10. Having which of the following is sufficient to derive the equation of a line

- | | |
|---|----------|
| a. Having both the X intercept and Y intercept | YES / NO |
| b. Having the slope and a pair of coordinates | YES / NO |
| c. Having the slope and Y intercept | YES / NO |
| d. Having two X intercepts | YES / NO |
| e. Having the slope and the equation of a parallel line | YES / NO |
| f. Having the x-intercept and the equation of a parallel line | YES / NO |

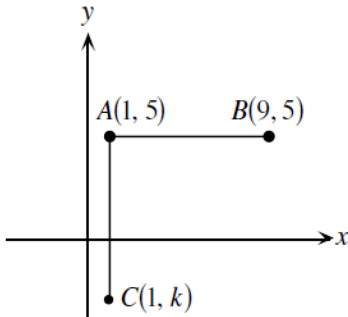
11. Given that the x-intercept of a line is -3 and y-intercept is 4 . If the line is written in the form of $Ax + Bx + C = 0$ then what is the value of $A + B + C$?

12. Three of these points are collinear, what is the sum of the x-coordinates for all these three points?

- A) $(-1,3)$ B) $(3,3)$ C) $(5,1)$ D) $(1,1)$ E) $(-1,-1)$

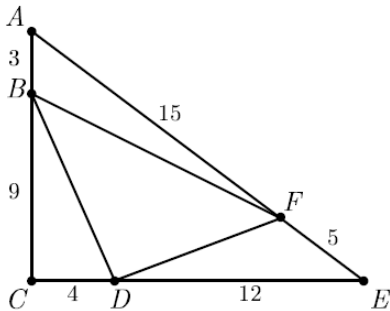
13. A line has a x-intercept of 55 and y-intercept of 40. How many points on the line have both positive "X" and "Y" integer coordinates?

14. If the slope of BC is $\frac{13}{5}$, then what is the value of "k" and the X-intercept of the line segment?

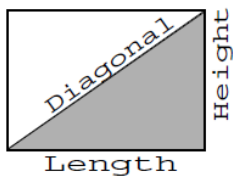


15. The equations $2x + 7 = 3y$ and $3bx - 8 = -4y$ have the same X-intercept. What is the value of "b"?

16. Given the following diagram, what is the slope of segment BF?

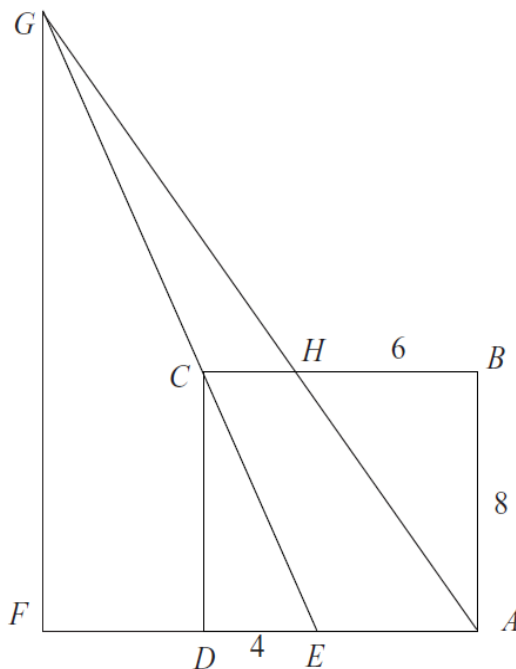


17. If the slope of the diagonal in a television screen is 0.75 with a length of 66", then what are the dimensions of the tv?



18. The slope is $\frac{15}{7}$. The x intercept is (A,0) and the y-intercept is (0,B). If $B = A + 5.5$, then what are the possible equations of the line(s)?

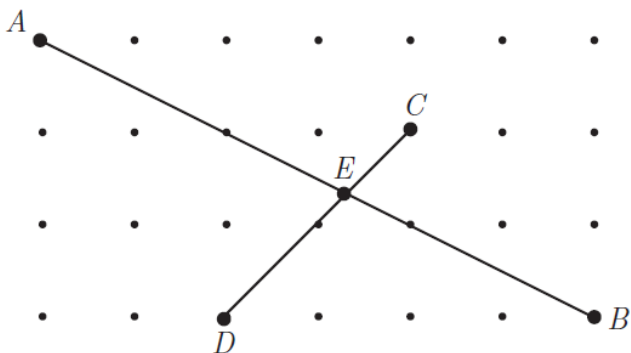
22. In rectangle $ABCD$, we have $AB = 8$, $BC = 9$, H is on \overline{BC} with $BH = 6$, E is on \overline{AD} with $DE = 4$, line EC intersects line AH at G , and F is on line AD with $\overline{GF} \perp \overline{AF}$. Find the length \overline{GF} .



- (A) 16 (B) 20 (C) 24 (D) 28 (E) 30

19.

16. The diagram shows 28 lattice points, each one unit from its nearest neighbors. Segment AB meets segment CD at E . Find the length of segment AE .



- (A) $4\sqrt{5}/3$ (B) $5\sqrt{5}/3$ (C) $12\sqrt{5}/7$ (D) $2\sqrt{5}$ (E) $5\sqrt{65}/9$