UB SAT 2009
Worksheet #12
Graphing Lines

Graph each linear equation by using the slope and y-intercept.

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

Graph each linear equation by finding the x and y-intercepts.

5. $3x + 2y = 12$ 6. $4x - 2y = 8$ 7. $x + y = -4$ 8. $2x - y - 2 = 0$

For 9-12, graph both lines on the same set of axes and, if possible, find the solution of the system (where the two lines intersect)

9. $\begin{cases} x - y = 5 \\ 2x + y = 1 \end{cases}$ 10. $\begin{cases} 2x - 3y = 3 \\ y = \frac{2}{3}x + 2 \end{cases}$ 11. $\begin{cases} x + 3 = y \\ y + x = -5 \end{cases}$ 12. $\begin{cases} y = 3x + 2 \\ 2x + 5 = y - 2x \end{cases}$

13. The point whose coordinates are $(4,-2)$ lies on a line whose slope is $\frac{3}{2}$. Which of the following are the coordinates of another point on this line?

(A) (1,0) (B) (2,1) (C) (6,1) (D) (7,0) (E) (1,4)

14. If point $E(5,h)$ is on the line that contains $A(0,1)$ and $B(-2,-1)$, what is the value of h?

(A) -1 (B) 0 (C) 1 (D) 3 (E) 6

15. If the line whose equation is $y = x + 2k$ passes through point (1,-3), then $k =$

(A) -2 (B) -1 (C) 1 (D) 2 (E) 4

16. What is the slope of the line that is perpendicular to the line whose equation is $2y + 3x = 6$?

(A) $-\frac{3}{2}$ (B) $-\frac{2}{3}$ (C) $\frac{1}{3}$ (D) $\frac{2}{3}$ (E) $\frac{3}{2}$

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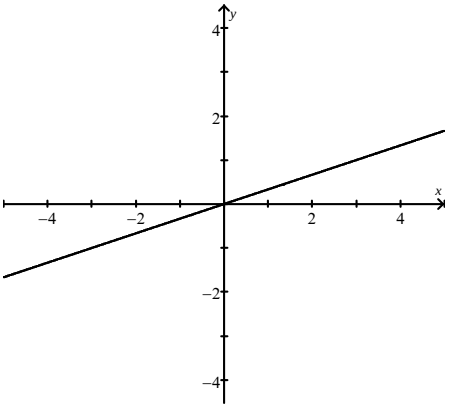
Answers

1.



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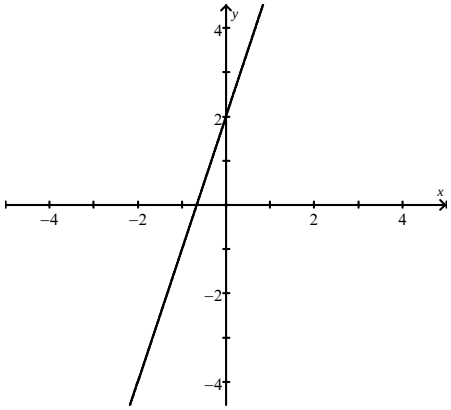

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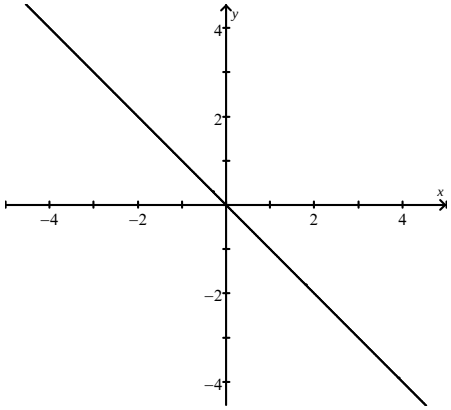

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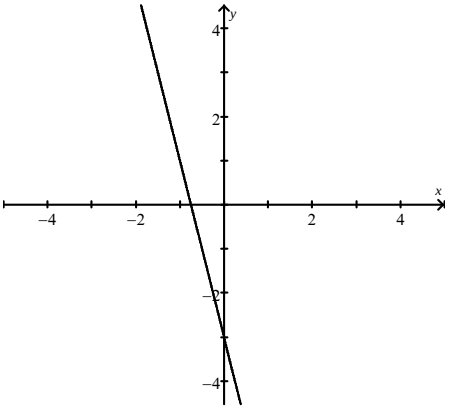

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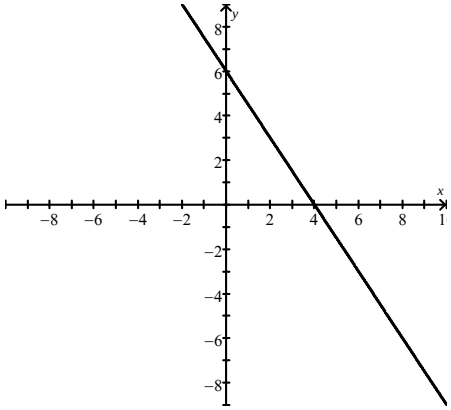

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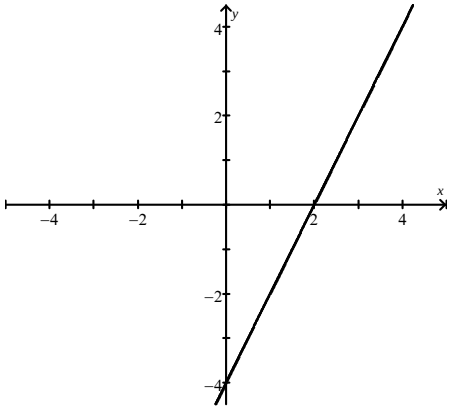

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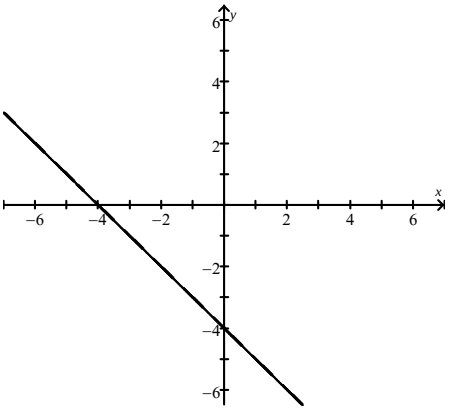

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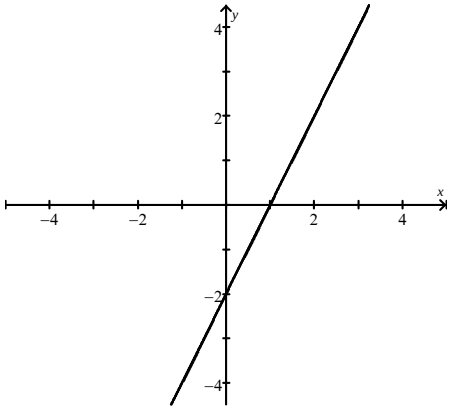

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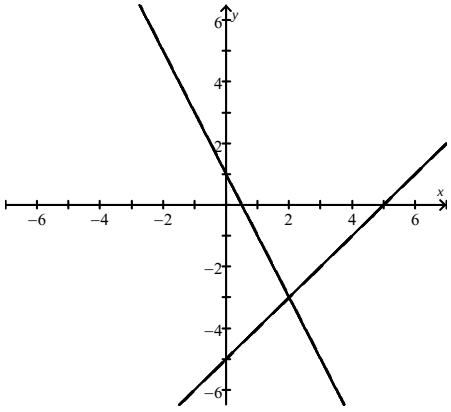
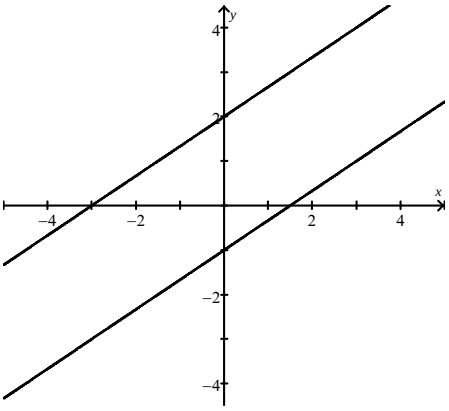


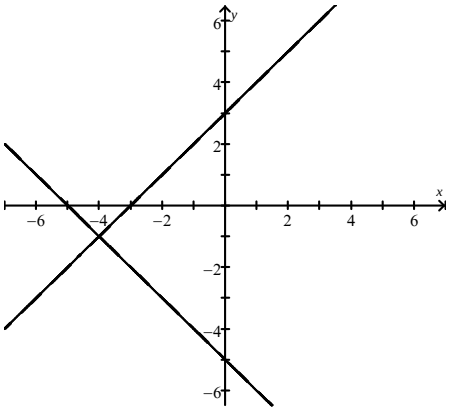
Solution: $(2,-3)$

10.



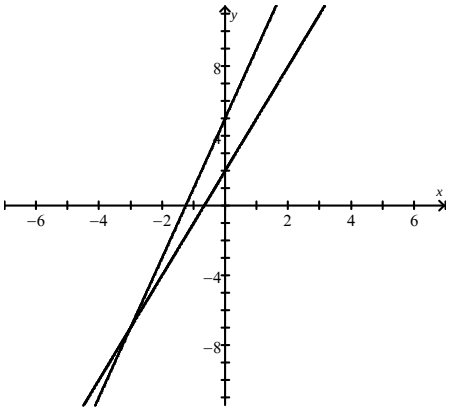
No Solution

11.



Solution: $(-4,-1)$

12.



Solution: $(-3,-7)$

13. C

14. E

15. A

16. D