

## Graphing and Writing Linear Equations

Find the  $x$ -intercept and  $y$ -intercept of each line.

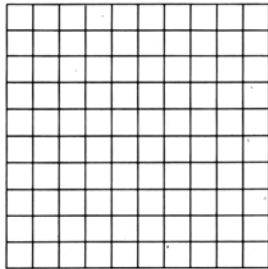
1.  $2x + y = 8$  \_\_\_\_\_      2.  $-3x - y = 4$  \_\_\_\_\_  
 3.  $4x + 2y = 10$  \_\_\_\_\_      4.  $5x - 3y = 15$  \_\_\_\_\_

Find the slope and  $y$ -intercept of each line.

5.  $y = 3x - 1$  \_\_\_\_\_      6.  $y = -6x$  \_\_\_\_\_  
 7.  $y = \frac{2}{3}x - 2$  \_\_\_\_\_      8.  $y = -\frac{8}{5}x - 5$  \_\_\_\_\_

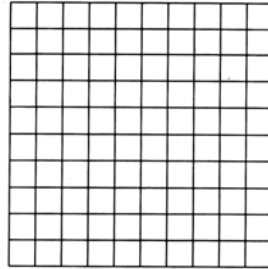
Solve each pair of equations algebraically. Then draw the graphs of the equations and label their intersection point.

9.  $x + y = 3$   
 $x - y = 5$



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10.  $3x + 2y = 5$   
 $2x - 3y = 12$



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Write an equation of the line described.

11. line with  $y$ -intercept  $-2$  and slope  $-4$  \_\_\_\_\_  
 12. line with  $y$ -intercept  $6$  and slope  $\frac{1}{2}$  \_\_\_\_\_  
 13. line with  $x$ -intercept  $4$  and  $y$ -intercept  $-2$  \_\_\_\_\_  
 14. line through  $(1, -2)$  with slope  $-3$  \_\_\_\_\_  
 15. line through  $(-4, 5)$  and  $(0, -3)$  \_\_\_\_\_  
 16. line with  $x$ -intercept  $-7$  and  $y$ -intercept  $1$  \_\_\_\_\_  
 17. line through  $(6, 2)$  and parallel to the line  $x - 2y = 5$  \_\_\_\_\_  
 18. line through  $(3, 2)$  and  $(4, 7)$  \_\_\_\_\_  
 19. line through  $(-2, 1)$  and perpendicular to the line  $y = 5$  \_\_\_\_\_  
 20. perpendicular bisector of the segment joining  $(7, 2)$  and  $(3, 0)$  \_\_\_\_\_

9)	10)	11)
12)	13)	14)
15)	16)	17)
18)	19)	20)