

## Written Exercises

Give an equation of each line described. Use the form specified by your teacher.

**A**

1.      2.      3.      4.      5.      6.

slope	2	-3	$\frac{1}{2}$	$\frac{3}{4}$	$-\frac{7}{5}$	$-\frac{3}{2}$
y-intercept	5	6	-8	-9	8	-7

7.      8.      9.      10.

x-intercept	8	9	-8	-5
y-intercept	2	-3	4	-2

11.      12.      13.      14.      15.      16.

point	(1, 2)	(3, 8)	(-3, 5)	(6, -6)	(-4, 0)	(-10, 3)
slope	5	4	$\frac{1}{3}$	$-\frac{2}{3}$	$-\frac{1}{2}$	$-\frac{2}{5}$

17. line through (1, 1) and (4, 7)      18. line through (-1, -3) and (2, 1)  
 19. line through (-3, 1) and (3, 3)      20. line through (-2, -1) and (-6, -5)  
 21. vertical line through (2, -5)      22. horizontal line through (3, 1)

23. line through (5, -3) and parallel to the line  $x = 4$   
 24. line through (-8, -2) and parallel to the line  $x = 5$

**B**

25. line through (5, 7) and parallel to the line  $y = 3x - 4$   
 26. line through (-1, 3) and parallel to the line  $3x + 5y = 15$   
 27. line through (-3, -2) and perpendicular to the line  $8x - 5y = 0$   
 28. line through (8, 0) and perpendicular to the line  $3x + 4y = 12$   
 29. perpendicular bisector of the segment joining (0, 0) and (10, 6)  
 30. perpendicular bisector of the segment joining (-3, 7) and (5, 1)  
 31. the line through (5, 5) that makes a  $45^\circ$  angle measured counterclockwise from the positive  $x$ -axis  
 32. the line through the origin that makes a  $135^\circ$  angle measured counterclockwise from the positive  $x$ -axis  
 33. Find each value of  $k$  for which the lines  $y = 9kx - 1$  and  $kx + 4y = 12$  are perpendicular.  
 34. Quad.  $BECK$  is known to be a rhombus. Two of the vertices are  $B(3, 5)$  and  $C(7, -3)$ .  
     a. Find the slope of diagonal  $\overline{EK}$ .      b. Find an equation of  $\overrightarrow{EK}$ .