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° angle measured counterclockwise from the positive x-axis

32. the line through the origin that makes a 135° 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 $\overleftrightarrow{EK}$.