

Go to 7.1 in the book (7.2 in the old edition.) and do the following for each problem:

(a) Put the equation into Slope-Intercept Form;

(b) Find the slope, m (Note: Any line parallel to this line will have the SAME slope.);

(c) Find the slope of any line that is perpendicular to this line.

(d) Find the y -intercept, b ;

(e) Find the x -intercept, if it exists. (The x -intercept can be given as just a number, or as an ordered pair.)

The answers to these are given below.

Then GRAPH each line. Be sure to plot the y -intercept and the x -intercept, IF they exist. Then use the slope to go from one of the intercepts to find and plot a third point for the line. You can check your Odd problem graphs in the back of the book.

(1)	(a) $y = -\frac{1}{2}x + 2$	(b) $m = -\frac{1}{2}$	(c) 2	(d) $b = 2$	(e) 4
(2)	(a) $y = -2x + 6$	(b) $m = -2$	(c) $\frac{1}{2}$	(d) $b = 6$	(e) 3
(3)	(a) $y = 2x - 2$	(b) $m = 2$	(c) $-\frac{1}{2}$	(d) $b = -2$	(e) 1
(4)	(a) $y = 3x - 3$	(b) $m = 3$	(c) $-\frac{1}{3}$	(d) $b = -3$	(e) 1
(5)	(a) $y = -\frac{3}{2}x + 3$	(b) $m = -\frac{3}{2}$	(c) $\frac{2}{3}$	(d) $b = 3$	(e) 2
(6)	(a) $y = -\frac{2}{3}x + 2$	(b) $m = -\frac{2}{3}$	(c) $\frac{3}{2}$	(d) $b = 2$	(e) 3
(7)	(a) $y = \frac{5}{4}x - 5$	(b) $m = \frac{5}{4}$	(c) $-\frac{4}{5}$	(d) $b = -5$	(e) 4
(8)	(a) $y = \frac{4}{3}x + 4$	(b) $m = \frac{4}{3}$	(c) $-\frac{3}{4}$	(d) $b = 4$	(e) -3
(9)	(a) $y = -\frac{1}{4}x - \frac{3}{2}$	(b) $m = -\frac{1}{4}$	(c) 4	(d) $b = -\frac{3}{2}$	(e) -6
(10)	(a) $y = -5x - 2$	(b) $m = -5$	(c) $\frac{1}{5}$	(d) $b = -2$	(e) $-\frac{2}{5}$
(11)	(a) $y = -\frac{1}{2}x - \frac{3}{2}$	(b) $m = -\frac{1}{2}$	(c) 2	(d) $b = -\frac{3}{2}$	(e) -3
(12)	(a) $y = -\frac{3}{2}x - 6$	(b) $m = -\frac{3}{2}$	(c) $\frac{2}{3}$	(d) $b = -6$	(e) -4
(13)	(a) $y = x + 3$	(b) $m = 1$	(c) -1	(d) $b = 3$	(e) -3
(14)	(a) $y = x - 1$	(b) $m = 1$	(c) -1	(d) $b = -1$	(e) 1
(15)	(a) $y = -2x - 1$	(b) $m = -2$	(c) $\frac{1}{2}$	(d) $b = -1$	(e) $-\frac{1}{2}$
(16)	(a) $y = 4x + 3$	(b) $m = 4$	(c) $-\frac{1}{4}$	(d) $b = 3$	(e) $-\frac{3}{4}$

(17) (a)	$y = \frac{1}{2}x + \frac{2}{3}$	(b)	$m = \frac{1}{2}$	(c)	-2	(d)	$b = \frac{2}{3}$	(e)	$-\frac{1}{3}$
(18) (a)	$y = \frac{2}{3}x - \frac{3}{4}$	(b)	$m = \frac{2}{3}$	(c)	$-\frac{3}{2}$	(d)	$b = -\frac{3}{4}$	(e)	$\frac{9}{8}$
(19) (a)	$y = -x$	(b)	$m = -1$	(c)	1	(d)	$b = 0$	(e)	0
(20) (a)	$y = x$	(b)	$m = 1$	(c)	-1	(d)	$b = 0$	(e)	0
(21) (a)	$y = 3x$	(b)	$m = 3$	(c)	$-\frac{1}{3}$	(d)	$b = 0$	(e)	0
(22) (a)	$y = -4x$	(b)	$m = -4$	(c)	$\frac{1}{4}$	(d)	$b = 0$	(e)	0
(23) (a)	$y = \frac{1}{2}x + \frac{1}{2}$	(b)	$m = \frac{1}{2}$	(c)	-2	(d)	$b = \frac{1}{2}$	(e)	-1
(24) (a)	$y = -\frac{1}{3}x + \frac{2}{3}$	(b)	$m = -\frac{1}{3}$	(c)	3	(d)	$b = \frac{2}{3}$	(e)	2
(25) (a)	$y = -\frac{1}{4}x + \frac{1}{6}$	(b)	$m = -\frac{1}{4}$	(c)	4	(d)	$b = \frac{1}{6}$	(e)	$\frac{2}{3}$
(26) (a)	$y = -\frac{1}{2}x - \frac{1}{2}$	(b)	$m = -\frac{1}{2}$	(c)	2	(d)	$b = -\frac{1}{2}$	(e)	-1
(27) (a)	$y = \frac{2}{3}x$	(b)	$m = \frac{2}{3}$	(c)	$-\frac{3}{2}$	(d)	$b = 0$	(e)	0
(28) (a)	$y = -\frac{3}{4}x$	(b)	$m = -\frac{3}{4}$	(c)	$\frac{4}{3}$	(d)	$b = 0$	(e)	0
(29) (a)	$x = 0$	(b)	<i>undefined</i>	(c)	0	(d)	$b = 0$	(e)	0
(30) (a)	$y = 0$	(b)	$m = 0$	(c)	<i>undefined</i>	(d)	$b = 0$	(e)	0
(31) (a)	$y = 2$	(b)	$m = 0$	(c)	<i>undefined</i>	(d)	$b = 2$	(e)	<i>none</i>
(32) (a)	$x = -3$	(b)	<i>undefined</i>	(c)	0	(d)	<i>none</i>	(e)	-3
(33) (a)	$y = \frac{1}{3}x - 1$	(b)	$m = \frac{1}{3}$	(c)	-3	(d)	$b = -1$	(e)	3