

**Worksheet - Equations of Lines (section 2.1)**

Find an equation for each of the lines below. Give your answer either in slope-intercept form or in general form ( $Ax + By = C$ ).

1. The line passing through the point  $A(-3, 2)$  with  $m = -2$ . What are the intercepts of this line?
2. The line passing through the point  $B(3, 0)$  and parallel to  $2x + 3y = 5$ .
3. The line passing through the point  $C(-6, 5)$  and perpendicular to  $\frac{x}{2} + \frac{y}{3} + 1 = 0$ . What are the intercepts of this line?
4. The line passing through the points  $D(-2, -3)$  and  $E(-4, 5)$ .
5. The line passing through the point  $F(1, -6)$  and perpendicular to  $4x - y = 5$



**Worksheet - More on Linear Functions (section 2.1)**

1. Find  $k$  so that the line containing the points  $(-3, k)$  and  $(4, 8)$  is parallel to the line containing the points  $(5, 3)$  and  $(1, 6)$ .

2. Find the value of  $a$  so that the graphs of  $3y = ax + 5$  and  $2x - 2y = 3$  represent parallel lines.

3. The following table of data represents a linear function. Find the missing numbers in the table.

$x$	$f(x)$
-1	6.5
0	
1.5	
	-1
3	-3.5
	-6.2

4. Find an equation of the line with the same slope as the line given by the equation  $3x - 2y = 8$  and the same  $y$ -intercept as the line given by the equation  $2y + 3x = -4$ .

5. Match column I and column II. (There may be more than one answer, some may have none)

	Column I	Column II
_____	i. $x = -5$	A. slope is zero
_____	ii. $y = 10$	B. $x$ -intercept is $(-6, 0)$
_____	iii. $3x - 12y = 36$	C. $x$ -intercept is $(10, 0)$
_____	iv. $G(x) = 15 + 4x$	D. slope is $0.25$
_____	v. $-5x + 6y = 30$	E. is a linear function
		F. $x = -3.75$ is a zero