Complete the table of values. Write the results as ordered pairs.

1) $5x - 2y = -10$
   
<table>
<thead>
<tr>
<th>$x$</th>
<th>$y$</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Find the intercepts for the graph of the equation.

2) $-2x + 5y = 10$
   
   $x$-intercept: $(-5, 0)$
   $y$-intercept: $(0, 2)$

Graph the linear equation.

3) $2x - y = 4$
   
   slope $= \frac{2}{3}$

Find the slope of the line through the pair of points.

5) $(1, -4)$ and $(5, 8)$
   
   $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{8 - (-4)}{5 - 1} = \frac{12}{4} = 3$

6) $(2, -9)$ and $(2, -2)$
   
   $m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-2 - (-9)}{2 - 2} = \frac{-2 + 9}{0} = \frac{7}{0}$
   
   undefined
Find the slope of the line.

7) \(2x + 3y = 16\)
\[-2x \quad -3x\]
\[
\frac{3y}{2} = \frac{-2x + 16}{3}
\]
\[
y = -\frac{2}{3}x + \frac{16}{3}
\]
\[
m = -\frac{2}{3}
\]

Write an equation of the line through the given point with the given slope. Write the equation in slope-intercept form.

8) \((0, 2); m = -\frac{5}{8}\)
\[
y = m x + b
\]
\[
y = -\frac{5}{8}x + b
\]
\[
2 = -\frac{5}{8}(0) + b
\]
\[
b = 2
\]
\[
y = -\frac{5}{8}x + 2
\]

Graph the line through the given point with the given slope.

9) \((0, 6), m = -\frac{1}{4}\)

Solve the system by the elimination method. Write the ordered pair; or write the solution statement.

10) \(2x + 3y = 9\)
\[
-2x + 4y = 12
\]
\[
10y = 30
\]
\[
y = 3
\]
\[
x + 3(3) = 9
\]
\[
x = 0
\]
\[
(x, y) = (0, 3)
\]

11) \(-4x + 8y = -12\)
\[
2(x - 5y = 6)
\]
\[
-4x + 8y = -12
\]
\[
10y = -30
\]
\[
y = -3
\]
\[
x = 3
\]
\[
(x, y) = (3, 0)
\]

12) \(9x = 2y + 2\)
\[
9x = 2y - 4\]
\[
9x = 2y - 4
\]
\[
9x = 9x - 9y = -11
\]
\[
x - 9y = 1
\]
\[
o = 6\] False

Evaluate the polynomial.

13) \(-3x^2 - 2x - 9\) for \(x = -3\)
\[
-3(-3)^2 - 2(-3) - 9
\]
\[
-3(9) + 6 - 9
\]
\[
-27 + 6 - 9 = -30
\]
\[
-30
\]

14) \(-3x^3 - 3x^2 - 41\) for \(x = -2\)
\[
-3(-2)^3 - 3(-2)^2 - 41
\]
\[
-3(8) - 3(4) - 41
\]
\[
24 - 12 - 41
\]
\[
-39
\]
\[
-29
\]

Add or subtract as indicated.

15) \((x^3y^2 - 3x^2y^3 + 5xy + 5) + (x^2y^3 - 7x^3y^2 + 2xy + 3)\)
\[
-7x^3y^2 + x^2y^3 + 3xy + 3
\]
\[
(x^3y^2 - 3x^2y^3 + 5xy + 5) - (-3x^2y^3 + 7x^3y^2 + 2xy + 3)
\]
\[
-6x^3y^2 + 2x^3y^3 + 7xy + 8
\]
\[
-6x^2y^2 + 2x^3y^3 + 7xy + 8
\]

16) \((5x + 26xy - 30y) - (14x - 6xy - 23y)\)
\[
-14x + 6xy + 23y
\]
\[
14a^5 - 30a^2
\]

Solve the problem.

17) Subtract \((-19a^5 + 17a^2)\) from \((-5a^5 - 13a^2)\)
\[
14a^5 - 30a^2
\]
Simplify the expression. Use positive exponents. Assume variables represent nonzero real numbers.
18) \((-8p^4)(-7p^5)\) \(= 56p^{4+5} = 56p^9\)

Use the power rules for exponents to simplify. Write the answer in exponential form.
19) \((-5x^3y^2)^3\) \(= -125x^9y^6\)

Simplify the expression. Use positive exponents. Assume variables represent nonzero real numbers.
20) \((-5p^2)(-5p^4)\) \(= 5 \cdot 5 \cdot p^{2+4} = 25p^6\)
21) \(\left(\frac{4p^4v^4}{s^3}\right)^2\) \(= \frac{16p^8v^8}{s^6}\)

Find the product.
22) \(-7x^4(-5x^7 + 10x^4 - 10)\) \(= 35x^11 - 70x^8 + 70x^4\)
23) \((4y - 3)(16y^2 + 12y + 9)\) \(= 64y^3 - 27\)
24) \(2m^3(4m-1)(2m+3)\) \(= 16m^5 + 20m^4 - 6m^3\)

Find the square.
25) \((3m + 7)^2\) \(= 9m^2 + 42m + 49\)
26) \((10x - 11y)^2\) \(= 100x^2 - 220xy + 121y^2\)

Find the product.
27) \((8m - 3w)(8m + 3w)\) \(= 64m^2 - 9w^2\)
28) \((9y^2 - 3)(9y^2 + 3)\) \(= 81y^4 - 9\)
29) \(2x(12y + x)(12y - x)\) \(= 288xy^2 - 2x^3\)

Find the value of the expression.
30) \(\frac{5(2+1) - 6(1+1)}{5(4-2) - 23}\) \(= \frac{15 - 12}{10 - 23} = \frac{3}{2}\)

Solve the equation.
31) \[\frac{1}{2}(x + 5 + \frac{5}{6}(x - 3) = x + 3 \quad \text{[1]} \]
\[2(x - 1) + 5(x - 3) = 6x + 18 \quad \text{[2]} \]
\[2x - 2 + 5x - 15 = 6x + 18 \quad \text{[3]} \]
\[-7x - 17 = 6x + 18 \quad \text{[4]} \]
\[-6x + 17 - 6x = 35 \quad \text{[5]} \]
\[x = 35 \quad \text{[6]} \]

Solve the problem.
32) If the first and third of three consecutive odd integers are added, the result is 63 less than five times the second integer. Find the third integer.
\[x + 2 \quad x + 4 \quad \text{[C-3]} \]
\[2x + 6x = 5x + 10 \quad \text{[C-3]} \]
\[-2x - 2x - 10 \quad \text{[C-3]} \]
\[5x + 10 = 3x \quad \text{[C-3]} \]
\[19 + 2 = x + 2 \quad \text{[C-3]} \]
\[19 + 4 = x + 4 \quad \text{[C-3]} \]
\[x + 2 = x + 2 \quad \text{[C-3]} \]
\[23 = x + 4 \quad \text{[C-3]} \]
\[x = 23 \quad \text{[C-3]} \]
Solve the inequality, then graph the solution. Write the interval solution.

33) \(-6(3x - 10) \leq -12x + 24\)

\[ -18x + 60 \leq -12x + 24 \]

\[ +18x \quad -24 \quad +18x - 24 \]

\[ 36 \leq 6x \]

\[ 6 \leq x \]

\[ x \geq 6 \]