

1. Simplify each of the following.

(a) $-5^2 - (-5)^2 =$

(b) $\sqrt{25 - 16} - (\sqrt{25} - \sqrt{16}) =$

(c) $-2 \left| 3 - (-2)^2 \right| - 3^2 \left| \right| =$

(d) $-2 \left| 3 - (-2)^2 - \left| -3^2 \right| \right| =$

(e) $10 - 2(-17 - 2(-5)) =$

(f) $-2 \left(\left(11 - (-3)^2 \right)^2 - 7 \right) =$

(g) $\frac{-2 + (-2)^2 + (-2)^3}{-3^2 - (-3)} =$

(h) $-10 - (-30) \div 5 \cdot 6 =$

2. Simplify each of the following.

(a) $-3a(-2a)^2 =$

(b) $-b(-2ab)^2(-ab^2) =$

(c) $(2x^2)^3(3x^3)^2 =$

3. Solve each of the following equations. Make sure to check your solution.

(a) $\frac{a}{-2} = 7$

(b) $p - (-7) = 7$

(c) $-x = 23$

4. Graph the straight lines $y = -3x + 7$ and $y = -x - 1$ in the same coordinate system.

(a) Use your graph to find the coordinates of the point where they intersect.

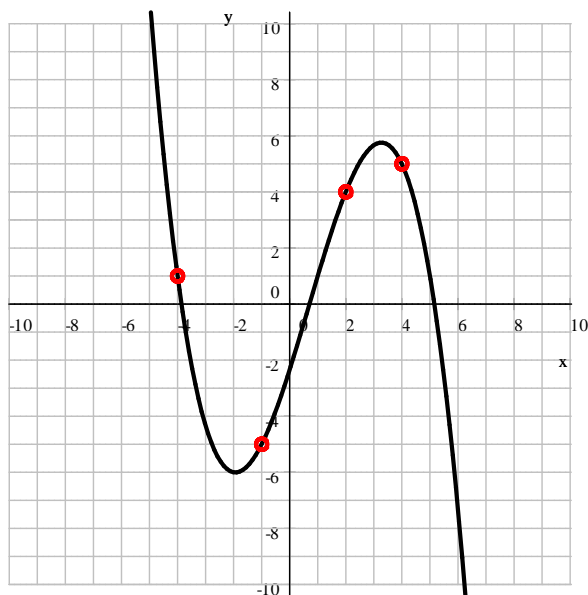
(b) Use algebraic methods to check your answer.

5. Graph the straight lines $y = -x + 4$ and $y = 7$ in the same coordinate system.

(a) Use your graph to find the coordinates of the point where they intersect.

(b) Use algebraic methods to check your answer.

6. Consider the graph shown below. Note that the points $A(-4, 1)$, $B(-1, -5)$, $C(2, 4)$, and $D(4, 5)$ are on the graph.



- (a) Consider the equation $8y - 6x^2 = -x^2 + 14x - 16$.
- Which of the points A , B , C , and D are on the graph of the equation given?
 - Which of the points A , B , C , and D are NOT on the graph of the equation given?
 - Could the graph be that of this equation?
- (b) Consider the equation $2y - 3 = x + 3$.
- Which of the points A , B , C , and D are on the graph of the equation given?
 - Which of the points A , B , C , and D are NOT on the graph of the equation given?
 - Could the graph be that of this equation?
- (c) Consider the equation $6(1 - y) = (x - 1)(x^2 - x - 20)$.
- Which of the points A , B , C , and D are on the graph of the equation given?
 - Which of the points A , B , C , and D are NOT on the graph of the equation given?
 - Could the graph be that of this equation?