Algebra 1 Name_____ ID: 1

Assignment

Date_____ Period____

Solve each equation by completing the square.

1) $10x^2 - 20x - 35 = -5$

2) $7n^2 + 14n - 53 = 3$

3) $6n^2 - 12n - 67 = -7$

4) $10v^2 + 20v - 24 = 6$

5) $v^2 - 10v - 37 = 2$

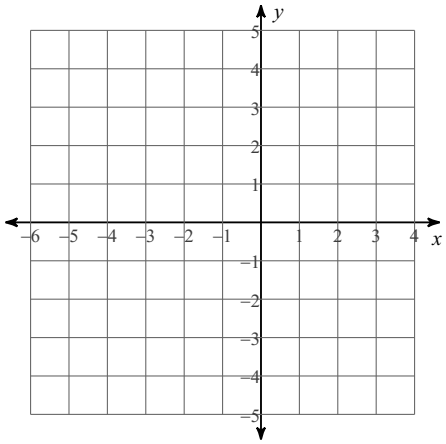
6) $n^2 - 16n - 73 = 7$

7) $x^2 - 6x - 100 = -9$

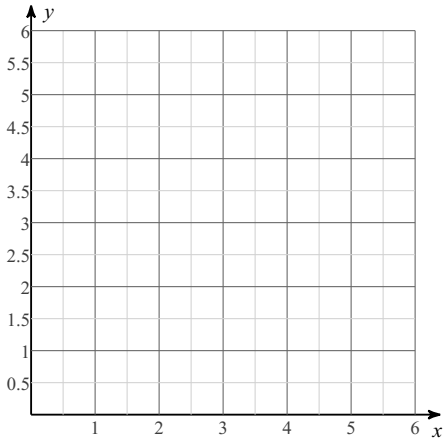
8) $x^2 + 6x - 100 = -9$

Convert to vertex form by completing the square. Then sketch the graph of each function.

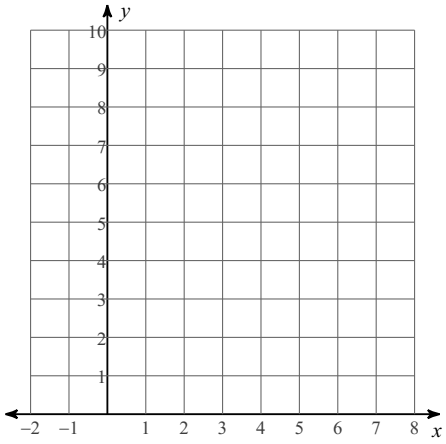
9) $y = 2x^2 + 8x + 4$



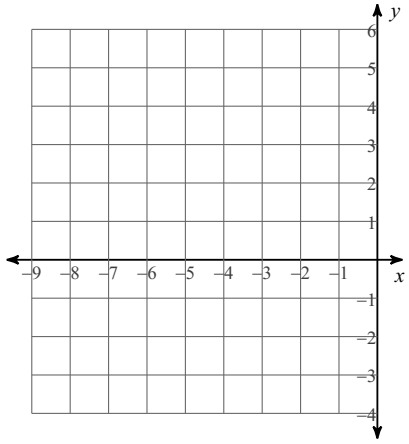
10) $y = x^2 - 6x + 10$



11) $y = 2x^2 - 12x + 19$



12) $y = 2x^2 + 16x + 29$



Algebra 1 Name_____ ID: 1

Assignment

Date_____ Period____

Solve each equation by completing the square.

1) $10x^2 - 20x - 35 = -5$

$\{3, -1\}$

2) $7n^2 + 14n - 53 = 3$

$\{2, -4\}$

3) $6n^2 - 12n - 67 = -7$

$\{4.317, -2.317\}$

4) $10v^2 + 20v - 24 = 6$

$\{1, -3\}$

5) $v^2 - 10v - 37 = 2$

$\{13, -3\}$

6) $n^2 - 16n - 73 = 7$

$\{20, -4\}$

7) $x^2 - 6x - 100 = -9$

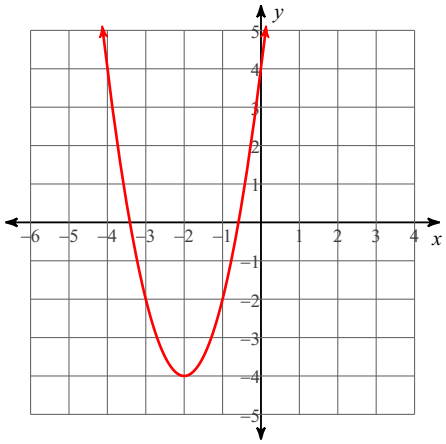
$\{13, -7\}$

8) $x^2 + 6x - 100 = -9$

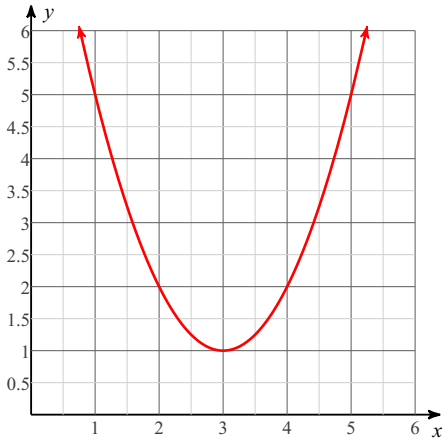
$\{7, -13\}$

Convert to vertex form by completing the square. Then sketch the graph of each function.

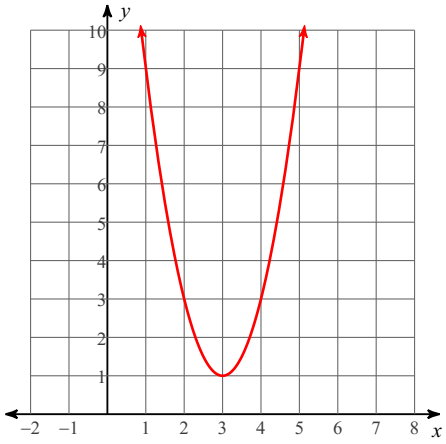
9) $y = 2x^2 + 8x + 4$



10) $y = x^2 - 6x + 10$



11) $y = 2x^2 - 12x + 19$



12) $y = 2x^2 + 16x + 29$