

Alg I 9.31 Practice Solving with Square Roots

Date _____ Period _____

Solve each equation by taking square roots.

1) $n^2 = 64$

2) $v^2 = -38$

3) $16r^2 = 64$

4) $r^2 + 4 = 68$

5) $k^2 + 1 = 10$

6) $a^2 - 2 = 14$

$$7) 3n^2 + 9 = 36$$

$$8) 6a^2 - 9 = 87$$

Find the axis of symmetry and the vertex without graphing.

$$9) y = -2x^2 + 12x - 15$$

$$10) y = -x^2 + 6x - 5$$

$$11) y = x^2 - 6x + 12$$

$$12) y = -3x^2 - 6x - 4$$

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Date _____ Period _____

Solve each equation by taking square roots.

1) $n^2 = 64$

 $\{8, -8\}$

2) $v^2 = -38$

No solution.

3) $16r^2 = 64$

 $\{2, -2\}$

4) $r^2 + 4 = 68$

 $\{8, -8\}$

5) $k^2 + 1 = 10$

 $\{3, -3\}$

6) $a^2 - 2 = 14$

 $\{4, -4\}$

$$7) 3n^2 + 9 = 36$$

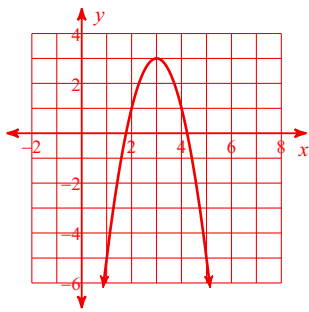
$$\{3, -3\}$$

$$8) 6a^2 - 9 = 87$$

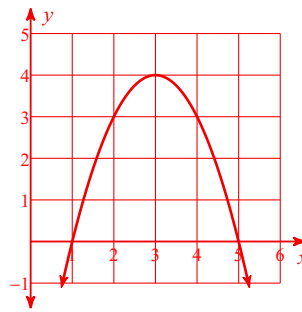
$$\{4, -4\}$$

Find the axis of symmetry and the vertex without graphing.

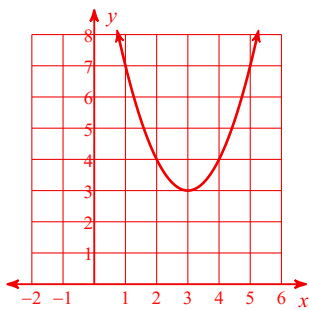
$$9) y = -2x^2 + 12x - 15$$



$$10) y = -x^2 + 6x - 5$$



$$11) y = x^2 - 6x + 12$$



$$12) y = -3x^2 - 6x - 4$$

