

## Algebra I

### Lesson 9.7 – Solving Quadratic Equations by using Square Roots

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Not all quadratics are easily factorable or readily graphed to find the solutions. So now what? Well if we are lucky and the quadratic is a binomial when written in standard form we may be able to use square roots to solve it.

#### Vocabulary

**Square root** – a number that is multiplied by itself to form a product is called a *square root* of that product.



Find the square root of each term:

16	121	0	-25	$4x^2$
$\frac{25}{4}$	$\frac{36}{9}$	$\frac{1}{9}$	10	45

Solve using square roots, if not a perfect square, round to the nearest hundredth.

$x^2 = 144$	$x^2 - 25 = 0$	$4x^2 - 49 = 0$	$9x^2 - 16 = 0$
$2x^2 + 3 = 7$	$0 = 90 - x^2$	$2x^2 - 64 = 0$	$100x^2 + 9$