



9.1 Quadratic Equations

Need To Know



- Why we need more than one method
- The square root property for equation
- Solve quadratic equations



Quadratic Equations

Solve:

$$x^2 - 25 = 0$$

$$x^2 - 7 = 0$$



The Principle of Square Roots

The Principle of Square Roots

For all positive real numbers b ,

In Words

We use the square root to remove "squared stuff".

Always remember there are two answers,
so use the \pm .



Practice

Solve:

$$5x^2 = 60$$

How to Solve

1.

2.

3.

4.



Practice

Solve:

$$(x - 5)^2 = 49$$

How to Solve

1. Isolate the squared stuff
2. Square root both sides
3. Use the \pm
4. Check answer



Practice

Solve:

$$(x - 3)^2 = 5$$

How to Solve

1. Isolate the squared stuff
2. Square root both sides
3. Use the \pm
4. Check answer

Practice

Solve:

$$m^2 - 6m + 9 = 64$$

How to Solve

1. Isolate the squared stuff
2. Square root both sides
3. Use the \pm
4. Check answer

9.1 Conclusion

Ways to Solve Quadratic Equations

1. Factoring method (see 5.6)
(Set up: equation must equal zero)
2. Square root method
(Set up: "squared stuff" by itself)

Rating	Doable
Easy	Not always