REVIEW

Solving Quadratic Functions

SOLVING OF QUADRATIC FUNCTIONS USING SQUARE ROOTS

Solve the equation using square roots. Round your solutions to the nearest hundredth, if necessary.

- **Isolate the square**
- **Root the square**

1) $x^2 - 17 = 8$

SOLVING OF QUADRATIC FUNCTIONS USING SQUARE ROOTS

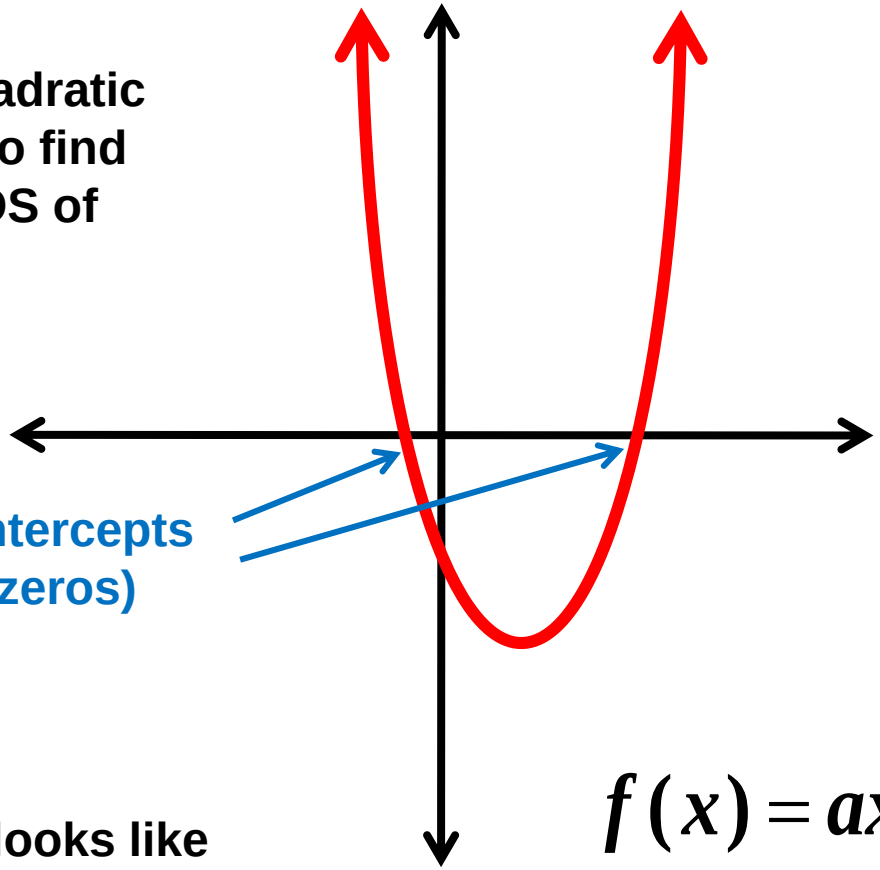
Solve the equation using square roots. Round your solutions to the nearest hundredth, if necessary.

2) $(x+2)^2 - 16 = 48$

- **Isolate the square**
- **Root the square**

SOLVING OF QUADRATIC FUNCTIONS

When we are solving quadratic function, we are trying to find the x-intercepts or ZEROS of the graph.



Since any x-intercept, looks like (x,0), when we solve a quadratic helps to make the function equal to 0, which is basically y value.

$$f(x) = ax^2 + bx + c$$

$$y = ax^2 + bx + c$$

$$0 = ax^2 + bx + c$$

SOLVING OF QUADRATIC FUNCTIONS USING FACTORING

1) **Factor out the GCF first**

2) **Look for a difference of squares**

$$a^2 - b^2 = (a - b)(a + b)$$

3) **Look for a perfect square trinomial**

$$a^2 + 2ab + b^2 = (a + b)^2 \quad \text{or}$$
$$a^2 - 2ab + b^2 = (a - b)^2$$

4) **Look for a pair of binomial factors**

5) **If a polynomial has 4 or more terms, look for a way to factor by grouping**

6) **Make sure you can't factor any further**

7) **Check your work!**

SOLVING OF QUADRATIC FUNCTIONS USING FACTORING

Solve the equation using factoring.

3) $15x^2 + 45x = 0$

SOLVING OF QUADRATIC FUNCTIONS USING FACTORING

Solve the equation using factoring.

4) $x^2 - 121 = 0$

SOLVING OF QUADRATIC FUNCTIONS USING FACTORING

Solve the equation using factoring.

5) $x^2 - 3y + 2 = 0$

SOLVING OF QUADRATIC FUNCTIONS USING FACTORING

Solve the equation using factoring.

$$6)\quad 6x^2 + x = 2$$