

Tue 11-6-18

Methods for Solving quadratic Equations

• Method #2 (The square root method)

Steps

1) (something)² = #

2) take the square root of both sides (always use plus or minus symbol)

3) Solve for x

A.) $4x^2 = 100$

$$4x^2 = 100$$

$$\sqrt{4x^2} = \sqrt{100}$$

$$2x = \pm 10$$

$$x = \pm 10/2$$

$$\boxed{x=5} \text{ or } \boxed{x=-5}$$

B.) $x^2 - 20 = 0$

$$x^2 = 20$$

$$\sqrt{x^2} = \sqrt{20}$$

$$x = \pm \sqrt{2 \cdot 2 \cdot 5}$$

$$x = \pm 2\sqrt{5}$$

$$\boxed{x=2\sqrt{5}} \text{ or } \boxed{x=-2\sqrt{5}}$$

Web assign

Problems

Sec 1.4

7.) $25x^2 = 400$

$$25x^2 = 400$$

$$\sqrt{25x^2} = \sqrt{400}$$

$$5x = \pm 20$$

$$x = \pm 20/5$$

$$\boxed{x=4} \text{ or } \boxed{x=-4}$$

8.) $(x-8)^2 = 64$

$$(x-8)^2 = 64$$

$$\sqrt{(x-8)^2} = \sqrt{64}$$

$$(x-8) = \pm 8$$

• you cannot add or subtract a
"±"

$$x-8=8 \quad \text{or} \quad x-8=-8$$

$$\boxed{x=16} \quad \text{or} \quad \boxed{x=0}$$