

Square Root Method

$$ax^2 + bx + c = 0 \quad || \div b \quad \text{Missing } \frac{1}{b} \text{ term}$$

$$2x^2 - 5 = 0$$

$$x^2 = 24$$

$$9x^2 + 16 = 0$$

$$14x^2 - 25 = 0$$


$$3x^2 = 47$$



Square root method

$$\sqrt{x^2} = \sqrt{64}$$

$$x = \pm 8$$

- 
- ① Isolate x^2
 - ② Square root of both sides

Solve: $x^2 = 24$



Solve: $x^2 - 5 = 23$
 $+5$

$$\sqrt{x^2} = \sqrt{28}$$

$$x = \pm \sqrt{28}$$

④ 7

$$x = \pm 2\sqrt{7}$$

① Isolate x^2

② $\sqrt{\quad}$
both sides

③ Simplify



Solve:

$$x^2 + 8 = 4$$
$$\sqrt{x^2} = \sqrt{-8}$$
$$x = \pm 2i$$



Solve:

$$\sqrt{(x+3)^2} = \sqrt{32}$$

$$x + \cancel{3} = \pm 4\sqrt{2}$$

$$x = -3 \pm 4\sqrt{2}$$

