CHAPTER 11: RADICAL EXPRESSIONS

10.4 Solving Quadratics with Factoring

OBJECTIVES

- I can solve a quadratic equation by factoring

PART 1: QUADRATIC EQUATIONS

Definition **Standard Form of a Quadratic Equation**

A **quadratic equation** is an equation that can be written in the form $ax^2 + bx + c = 0$, where $a \neq 0$. This form is called the **standard form of a quadratic equation.**

PART 2: ZERO PRODUCT PROPERTY

Property **Zero-Product Property**

For every real number a and b, if $ab = 0$, then $a = 0$ or $b = 0$.

Example If $(x + 3)(x + 2) = 0$, then $x + 3 = 0$ or $x + 2 = 0$.

1 Solve each equation.

a. $(x + 7)(x - 4) = 0$

b. $(3y - 5)(y - 2) = 0$

PART 3: SOLVING WITH FACTORING

2 Solve $x^2 - 8x - 48 = 0$ by factoring.

PART 3: SOLVING WITH FACTORING

3 Solve $x^2 - 12x = -36$.

CAN YOU?? PROVE IT!!

- I can solve a quadratic equation by factoring

15. $x^2 + 8x = -15$

18. $2c^2 - 7c = -5$