Solving Radical Equations and Inequalities

LESSON 8-8

Lesson Objectives (p. 628):

_____

_____

Vocabulary

1. Radical equation (p. 628): _____

_____

2. Radical Inequality (p. 630): _____

_____

Key Concepts

3. Solving Radical Equations (p. 611):

STEPS	EXAMPLE
1.	
2.	
3.	

4. Get Organized In each box, write a step needed to solve a radical equation with extraneous solutions. (p. 632).

LESSON
8-8

Solving Radical Equations and Inequalities

Know it! Note
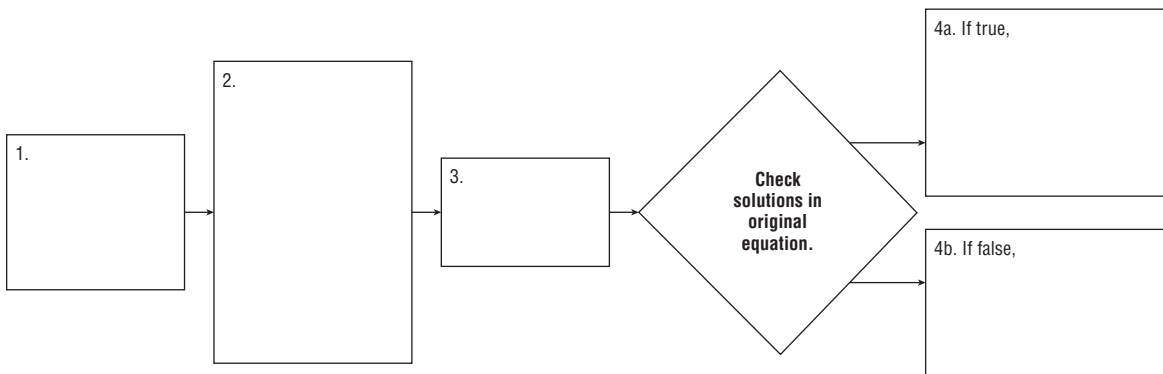
Lesson Objectives (p. 628):

solve radical equations and inequalities.

Vocabulary

1. Radical equation (p. 628): an equation containing a variable within a radical.

2. Radical Inequality (p. 630): an inequality that contains a variable within a radical.

Key Concepts

3. Solving Radical Equations (p. 611):

STEPS	EXAMPLE
1. **Isolate the radical.**	$\sqrt[3]{x} - 2 = 0$ $\sqrt[3]{x} = 2$
2. **Raise both sides of the equation to the power equal to the index of the radical.**	$\left(\sqrt[3]{x}\right)^3 = (2)^3$
3. **Simplify and solve.**	$x = 8$

4. Get Organized In each box, write a step needed to solve a radical equation with extraneous solutions. (p. 632).

1. Isolate the radical expression.

2. Raise both sides of the equation to the power equal to the index of the radical.

3. Simplify and solve.

Check solutions in original equation.

4a. If **true,** the solution is a solution of the radical equation.

4b. If **false,** the solution is extraneous.

Algebra 2