Name _____ Class _____ Date _____

Reteaching 10-4

Solving Radical Equations

OBJECTIVE: Solving equations that contain radicals

MATERIALS: Index cards or pieces of paper of a similar size

A radical equation has a *variable* under the radical sign. The radical expression must be alone on one side of the equal sign before squaring.

Example

Jubal solved a radical equation, showing all the steps. He wrote each step on a separate index card. Then he dropped the pack of cards! Number each of his cards to show the correct order of his steps.

The number in the lower left corner shows the correct order for the steps.

$\sqrt{y} = 4$ **3.**	$3 + \sqrt{y} - 3 = 7 - 3$ **2.**	$y = 16$ **5.**
The solution of $3 + \sqrt{y} = 7$ is 16. **8.**	$\left(\sqrt{y}\right)^2 = (4)^2$ **4.**	$3 + \sqrt{16} \stackrel{?}{=} 7$ **6.**
$3 + 4 = 7$ ✔ **7.**	$3 + \sqrt{y} = 7$ **1.**	

Exercises

Solve each radical equation.

1. $\sqrt{3a} - 9 = 0$

2. $\sqrt{n - 2} = 3$

3. $c = \sqrt{3c - 8}$

4. $\sqrt{b} - 6 = -2\sqrt{b}$

5. $s = \sqrt{24 - 10s}$

6. $\sqrt{5x - 1} = \sqrt{3x + 9}$

7. $\sqrt{3y + 1} = 6$

8. $\sqrt{5x} - 3 = 2$

9. $\sqrt{2x + 1} = 5$

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