

Name

3-4

Lesson Master

Questions on SPUR Objectives
See Student Edition pages 216–219 for objectives.

SKILLS

Objective A

1. Fill in the missing steps to solve $\sqrt{2x + 5} = 2x + 3$, and tell whether each step is reversible.

Step		Reversible?
$\underline{\hspace{1cm}} = (2x + 3)^2$	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$
$\underline{\hspace{1cm}} = 4x^2 + \underline{\hspace{1cm}} + 9$	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$
$0 = \underline{\hspace{1cm}} \underline{\hspace{1cm}}$	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$
$0 = (\underline{\hspace{1cm}} \underline{\hspace{1cm}})(\underline{\hspace{1cm}} \underline{\hspace{1cm}})$	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$
$\underline{\hspace{1cm}} \text{ or } \underline{\hspace{1cm}}$	$\underline{\hspace{2cm}}$	$\underline{\hspace{2cm}}$

Check: $\underline{\hspace{4cm}}$
 $\underline{\hspace{4cm}}$

In 2 and 3, find all real solutions to the equation.

2. $\frac{1}{2x + 4} = \frac{1}{x^2 - 2x - 8}$
- $\underline{\hspace{4cm}}$
 $\underline{\hspace{4cm}}$
 $\underline{\hspace{4cm}}$
 $\underline{\hspace{4cm}}$
3. $\log_3 x^2 = \log_3 (x + 2)$
- $\underline{\hspace{4cm}}$
 $\underline{\hspace{4cm}}$
 $\underline{\hspace{4cm}}$
 $\underline{\hspace{4cm}}$

PROPERTIES

Objective F

4. *True or False.*
- a. Multiplying both sides of an equation by an expression is always reversible. $\underline{\hspace{2cm}}$
- b. Multiplying both sides of an equation by a constant is always reversible. $\underline{\hspace{2cm}}$

USES

Objective I

5. The center pole of a tent is placed on a 4-foot tall pedestal and held up by three ropes that run from the top of the pole to points on the ground that are 6 feet from the base of the pole. Each rope is 1.5 times as long as the pole. Find the height of the pole by solving $1.5h = \sqrt{6^2 + (h + 4)^2}$ for h .
- $\underline{\hspace{4cm}}$