

Name \_\_\_\_\_

1-8

Lesson Master

Questions on SPUR Objectives  
See Student Edition pages 71–75 for objectives.

PROPERTIES

Objective H

1. Fill in the blanks in each column of this proof of the statement *If  $0.5x + 9 = 7$ , then  $x = -1$ .*

Conclusions	Justifications	Logical Analysis
_____	Given	$p(c)$
$0.5x = -2$	_____	For all $x$ , $p(x) \Rightarrow q(x)$
$x = -1$	Multiplication Property of Equality	_____

2. Prove: *If  $z^2 = 2z + 3$ , then  $z = 3$  or  $z = -1$ .* Include justifications for each step.

Conclusions	Justifications
_____	_____
_____	_____
_____	_____
_____	_____

USES

Objective J

3. Is the following argument valid? Justify your answer.

A cell-phone plan costs \$49.95 for the first 500 minutes used in a month, plus an extra charge for each additional minute over the first 500. In February, Edward used 527 cell-phone minutes and was billed for \$54. Therefore, the charge for each extra minute is 15 cents.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. Fill in the blank to make this argument valid and write a proof to justify your answer:  
Bella is making skirts and jumpers for her three sisters. Each skirt requires  $2\frac{1}{2}$  yards of fabric and each jumper requires a certain amount of fabric. Bella had  $19\frac{1}{2}$  yards of fabric, but she did not have enough to make 3 skirts and three jumpers. Therefore, each jumper requires more than \_\_\_\_\_ yards of fabric.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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