

Name _____

1-6

Lesson Master

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

PROPERTIES

Objectives G and H

In 1-3, tell whether the argument is valid or invalid. Support your answer with a reference to one of the following.

- A Law of Detachment

D converse error
- B Law of Transitivity

E inverse error
- C Law of Indirect Reasoning

F improper induction
1. $\begin{cases} \forall x \in \mathbb{R}, x \geq 0 \Rightarrow \sqrt{x} \in \mathbb{R} \\ 6 \geq 0 \end{cases}$
 $\therefore \sqrt{6} \in \mathbb{R}$

2. $\begin{cases} m\angle A = m\angle B \\ \triangle ABC \cong \triangle DEF \Rightarrow m\angle A = m\angle B \end{cases}$
 $\therefore \triangle ABC \cong \triangle DEF$

3. If I carry my rabbit's foot, I will have good luck. If I have good luck, I will pass my history test. Therefore, if I carry my rabbit's foot, I will pass my history test.
- In 4 and 5, draw a valid conclusion from the statements and justify your answer.
4. If a polygon is regular, all its sides are congruent. The sides of P are not all congruent.

5. If a number is divisible by 9, it is divisible by 3. If a number is divisible by 27, it is divisible by 9.
- USES

Objective J
- In 6 and 7, determine whether the answer is valid and justify your answer.
6. On Monday, the bus was late.
On Tuesday, the bus was late.
On Wednesday, the bus was late.
Therefore, the bus is always late.

7. If you do your laundry, you will have clean socks.
You do your laundry.
Therefore, you have clean socks.
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