2.2 Puzzle Time

Which Garden Insects Are Always Polite?

Write the letter of each answer in the box containing the exercise number.

Complete the sentence.

1. A _____ is an unproven statement that is based on observations.

2. _____ uses facts, definitions, accepted properties, and the laws of logic to form a logical argument.

3. You use _____ when you find a pattern in specific cases and then write a conjecture for the general case.

4. A _____ is a specific case for which the conjecture is false.

State the law of logic that is illustrated.

5. If you exercise every day, then you will be a better athlete. You exercise every day. So, you will be a better athlete.

6. If you play baseball, then you play a sport. If you play a sport, then you are an athlete. You play baseball, so you are an athlete.

Find the counterexample that shows that the conjecture is false.

7. $\dfrac{N}{N} = 1$

8. All prime numbers are odd.

Answers

H. false term

D. counterexample

L. $N = 0$

N. $N = -\dfrac{1}{2}$

U. 2

R. 15

I. 0

Y. conjecture

B. Law of Detachment

S. inductive reasoning

G. Law of Syllogism

A. deductive reasoning

7	2	4	1	5	8	6	3