Name_____ Date_____

1. Identify the hypothesis and the conclusion. Then rewrite the conditional statement in if-then form.

   All 26° angles are acute angles.

2. Write the negation of each statement.

   a. The shirt is purple.

   b. The ball is blue.

   c. The tie is red.

3. Hypothesis p is true and conclusion q is false. Determine whether the statement $\sim q \rightarrow \sim p$ is *true* or *false*.

4. Write a definition of *conjecture*.

5. Find a counterexample to show that the conjecture is false.

   All numbers ending in 3 are divisible by 3.

6. Sketch a diagram of a plane P containing $\overrightarrow{AB}$.

7. Describe the pattern. Then write the next number.

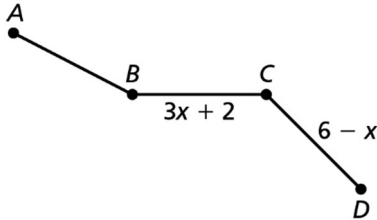   1, 2, 3, 6, 11, 20, 37, 68, 125, 230, 423, . . .

Chapter 2 **Quiz**
For use after Section 2.6

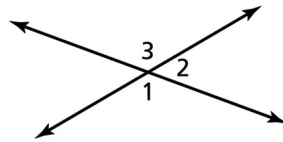1. Name the property of equality that the statement illustrates.

   $AB - 6 = AB - 6$

2. In the diagram, $\overline{AB} \cong \overline{CD}$ and $\overline{CD} \cong \overline{BC}$. Find BC.

   A

   B   *C*
   $3x + 2$
       $6 - x$

       D

3. Complete the two-column proof of the Vertical Angles Congruence Theorem.

   Given $\angle 1$ and $\angle 3$ are vertical angles.
   Prove $\angle 1 \cong \angle 3$

   3
   2
   1

STATEMENTS	REASONS
1. $\angle 1$ and $\angle 3$ are vertical angles.	1. Given
2. $\angle 1$ and $\angle 2$ are a linear pair. $\angle 2$ and $\angle 3$ are a linear pair.	2.
3. $\angle 1$ and $\angle 2$ are supplementary. $\angle 2$ and $\angle 3$ are supplementary.	3.
4. $\angle 1 \cong \angle 3$	4. Congruent Supplements Theorem

4. Solve the formula $A = 2\pi rh + 2\pi r^2$ for h.