Quiz 2.8: Writing Proofs

Multiple Choice: *Choose the letter that corresponds to the correct answer. Write the answer in your notebook.*

1. The statement that is accepted without proof is called:
   A. Contradiction B. Postulate C. Proof D. Theorem

2. A direct proof can be written in the following forms except:
   A. Flowchart form B. One-column form C. Paragraph form D. Two-column form

3. The form of logical reasoning in which each statement is organized and backed up by the reasons is called:
   A. Contradiction B. Postulate C. Proof D. Theorem

4. The statement that is accepted after it is proved deductively is called:
   A. Contradiction B. Postulate C. Proof D. Theorem

5. Arrange the steps in writing an indirect proof:
   I. Conclude that the original statement is true.
   II. Show that the assumption leads to a contradiction.
   III. Assume that the opposite of the statement to be proven is true.
   A. I, III, II B. II, I, III C. III, II, I D. II, III, I

6. When writing a two-column proof, which statements are usually stated in the beginning?
   A. Conclusion B. Given C. Reasons D. Statement to prove

7. Arrange the steps in writing a direct proof:
   I. Assume that the hypothesis is true.
   II. Show that the conclusion is true.
   III. Take the original conditional statement.
   A. I, II, III B. II, I, III C. III, I, II D. II, III, I

8. Supply a valid conclusion for the hypothesis: "If $\angle A$ and $\angle B$ are complementary angles, then _____."
   A. $m\angle A + m\angle B = 90°$ C. $\angle A$ and $\angle B$ form a linear pair
   B. $m\angle A + m\angle B = 180°$ D. $\angle A$ and $\angle B$ are vertical angles

9. Supply the reason for the statement: "If B is the midpoint of $\overline{AC}$, then $AB = BC$."
   A. Definition of Betweenness C. Definition of Congruent Segments
   B. Definition of Congruent Angles D. Definition of Midpoint

10. Supply the reason for the statement: "If $\overline{AB} \cong \overline{CD}$, then $AB = CD$. "
    A. Definition of Betweenness C. Definition of Congruent Segments
    B. Definition of Congruent Angles D. Definition of Midpoint

11. Supply the reason for the statement: "If B is between $\overline{AC}$, then $\overline{AC} = AB + BC$."
    A. Definition of Betweenness C. Definition of Congruent Segments
    B. Definition of Congruent Angles D. Definition of Midpoint

12. Supply a valid conclusion for the hypothesis: "If $\overline{AB} \perp \overline{AC}$, then _____."
    A. $\angle BAC$ is an acute angle C. $\angle BAC$ is a right angle
    B. $\angle BAC$ is an obtuse angle D. $\angle BAC$ is a straight angle

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