Quiz 3.2: Postulates and Theorems

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

1. What does the acronym TIAT stand for?
   A. Triangle Interior Angle Theorem
   B. Triangle Internal Angle Theorem
   C. Triangle Interior Alternate Theorem
   D. Triangle Internal Alternate Theorem

2. What is the meaning of the acronym PIAT?
   A. Parallel Internal Angle Theorem
   B. Parallel Interior Angle Theorem
   C. Polygon Internal Angle Theorem
   D. Polygon Interior Angle Theorem

3. Statements that are proved from definitions or using operations and facts that were already known are called:
   A. Axioms B. Postulates C. Proofs D. Theorems

4. Which theorem states that the sum of the degree measures of the angles of a triangle is $180°$?
   A. Quadrilateral Interior Angle Theorem
   B. Supplement Postulate
   C. Supplement Theorem
   D. Triangle Interior Angle Theorem

5. Which of the following theorems states the congruence of vertical angles?
   A. Complement Theorem
   B. Right Angles Congruency Theorem
   C. Third Angles Theorem
   D. Vertical Angle Theorem

6. Which of the following theorems states that any two right angles are congruent?
   A. Complement Theorem
   B. Right Angles Congruency Theorem
   C. Third Angles Theorem
   D. Vertical Angle Theorem

7. "If two angles form a linear pair, then they are supplementary." This is stated in:
   A. Complement Theorem
   B. PCAC Postulate
   C. Supplement Postulate
   D. Supplement Theorem

8. Provide the reason for this statement: "If $m\angle J + m\angle K = 90°$ and $m\angle K + m\angle L = 90°$, then $\angle J \cong \angle L$."
   A. Complement Theorem
   B. PCAC Postulate
   C. Supplement Postulate
   D. Supplement Theorem

9. Provide the reason for this statement: "If $\angle X$ and $\angle Y$ are vertical angles, then $\angle X \cong \angle Y$."
   A. Complement Theorem
   B. Right Angles Congruency Theorem
   C. Third Angles Theorem
   D. Vertical Angle Theorem

10. "If $\angle M$ and $\angle N$ form a linear pair, then $\angle M$ and $\angle N$ are supplementary." This statement is justified by:
    A. Complement Theorem
    B. PCAC Postulate
    C. Supplement Postulate
    D. Supplement Theorem

11. The exterior angle of a triangle can be solved using:
    A. Exterior Angles Theorem
    B. PAIC Theorem
    C. Supplement Theorem
    D. Vertical Angle Theorem

12. Which of the following theorems may be used to solve the third angle of a triangle?
    A. Complement Theorem
    B. Right Angles Congruency Theorem
    C. Third Angles Theorem
    D. Vertical Angle Theorem

Answer Key

1. What does the acronym TIAT stand for?

   Solution:

   A. Triangle Interior Angle Theorem
   C. Triangle Interior Alternate Theorem
   B. Triangle Internal Angle Theorem
   D. Triangle Internal Alternate Theorem

2. What is the meaning of the acronym PIAT?

   Solution:

   A. Parallel Internal Angle Theorem
   C. Polygon Internal Angle Theorem
   B. Parallel Interior Angle Theorem
   D. Polygon Interior Angle Theorem

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   Solution:

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