Quiz 3.7: Proving Statements on Triangle Congruence

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

1. "If two angles of a triangle are congruent, then the sides opposite those angles are also congruent." This is stated in:
   A. Isosceles Triangle Theorem   C. AAS Triangle Congruence Theorem
   B. Converse of Isosceles Triangle Theorem   D. LL Triangle Congruence Theorem

2. The congruent sides of an isosceles triangle are called:
   A. Base   B. Base angles   C. Legs   D. Vertex angle

3. A triangle in which all three sides have the same length is called:
   A. Equiangular   B. Equilateral   C. Isosceles   D. Right

4. A triangle which has all three interior angles congruent is called:
   A. Equiangular   B. Equilateral   C. Isosceles   D. Right

5. Which theorem states that if two sides of a triangle are congruent, then the angles opposite those sides are congruent?
   A. Isosceles Triangle Theorem   C. AAS Triangle Congruence Theorem
   B. Converse of Isosceles Triangle Theorem   D. LL Triangle Congruence Theorem

6. The angles opposite the congruent sides of an isosceles triangle are called:
   A. Base   B. Base angles   C. Legs   D. Vertex angle

7. A triangle is isosceles if two of its sides are:
   A. Congruent   B. Intersecting   C. Parallel   D. Perpendicular

8. In $\triangle EBI$, let N be the midpoint of $\overline{IE}$ and $\overline{BN} \perp \overline{IE}$. What theorem or postulate can justify that $\triangle BNI \cong \triangle BNE$?
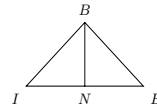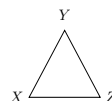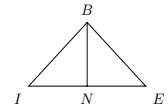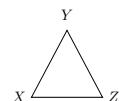

   A. AAS   B. ASA   C. LL   D. HL

9. $\triangle ABC$ and $\triangle DEF$ are isosceles right triangles. If $\overline{AB} \cong \overline{DE}$ and $\overline{AC} \cong \overline{DF}$, which of the following statements is true by CPCTC?
   A. $\overline{AC} \cong \overline{EF}$ B. $\overline{BC} \cong \overline{EF}$ C. $\overline{CA} \cong \overline{EF}$ D. $\overline{CB} \cong \overline{FD}$

10. Let $\triangle XYZ$ be an equilateral triangle. What theorem or postulate can justify that $\triangle XYZ$ is also equiangular?
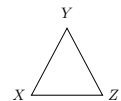
   A. Isosceles Triangle Theorem   C. AAS Triangle Congruence Theorem
   B. Converse of Isosceles Triangle Theorem   D. LL Triangle Congruence Theorem

11. Let $\triangle XYZ$ be an equiangular triangle. What theorem or postulate can justify that $\triangle XYZ$ is also equilateral?

   A. Isosceles Triangle Theorem   C. AAS Triangle Congruence Theorem
   B. Converse of Isosceles Triangle Theorem   D. LL Triangle Congruence Theorem