PEP Grade 8 Math — Unit 12: Congruent Triangles • Unit Test (Basic)

PEP · Grade 8 · Term 1 · Mathematics · Unit Test · Basic

AI-generated practice paper · original study aid, not an official examination paper · 40 questions · 100 points

Name: _____ Date: _____ Score: _____

Answer all questions. This paper is worth 100 points. Show your working where appropriate.

I. Multiple Choice

1. Which of the following conditions guarantees that two triangles are congruent?
   A. Two sides and a non-included angle are equal
   B. Two angles and a side not between them are equal
   C. All three angles are equal
   D. Two sides and the included angle are equal

2. In triangle ABC and triangle DEF, if AB = DE, BC = EF, and AC = DF, which congruence rule applies?
   A. ASA
   B. SAS
   C. SSS
   D. AAS

3. If two triangles have two angles and the included side equal, what is the correct congruence rule?
   A. SAS
   B. ASA
   C. AAS
   D. SSS

4. Triangle PQR has angles 60°, 70°, and 50°. Triangle XYZ has the same angle measures. Can we conclude that triangle PQR ≅ triangle XYZ?
   A. Yes, by AAA
   B. No, because AAA does not guarantee congruence
   C. Yes, if one side is also equal
   D. Only if they are equilateral

5. In triangles LMN and OPQ, $\angle L = \angle O$, $\angle M = \angle P$, and MN = PQ. Which congruence rule can be used?
   A. SAS
   B. ASA
   C. AAS
   D. SSS

6. Which pair of triangles must be congruent if they have the same perimeter and all corresponding angles are equal?
   A. Only if they are right-angled
   B. Only if they are isosceles
   C. Yes, because angles and perimeter determine side lengths
   D. No, because different side combinations can give same perimeter

7. If two triangles are congruent, which of the following statements must be true?
   A. They have equal areas but different shapes