

Unit 2: Congruence

CONCEPT

Name: _____ Date: _____

Show each answer as a number, coordinate pair, or short value. Rigid motions preserve length and angle, so corresponding parts of congruent figures are equal.

1. Triangle ABC is congruent to triangle DEF. Side AB = 7. What is the length of side DE (its corresponding side)?

Answer: _____

3. Point P(3, 5) is translated 4 units to the right (a rigid motion). What is the x-coordinate of its image?

Answer: _____

5. A segment has length 9. After a rigid transformation (a rotation), what is the length of its image?

Answer: _____

7. Point R(-2, 8) is translated down 3 units (a rigid motion). What is the y-coordinate of its image?

Answer: _____

9. Point S(4, 1) is reflected across the y-axis (a rigid motion). What are the coordinates of its image? Write as (x, y).

Answer: _____

2. Triangle ABC is congruent to triangle DEF. Angle A = 55° . What is the measure of angle D (its corresponding angle)?

Answer: _____

4. Point Q(6, 2) is reflected across the x-axis (a rigid motion). What are the coordinates of its image? Write as (x, y).

Answer: _____

6. Triangle ABC is congruent to triangle DEF. Angles A and B measure 40° and 75° . What is the measure of angle C?

Answer: _____

8. Triangle ABC is congruent to triangle DEF. Side EF = 12, and side BC corresponds to side EF. What is the length of BC?

Answer: _____

10. Two triangles have all three pairs of corresponding sides equal: 5, 6, and 8. By which one-word theorem are they congruent (write the three-letter abbreviation)? Answer SSS, SAS, or ASA.

Answer: _____

11. An angle measures 30° . After a rigid transformation, what is the measure of its image angle?

Answer: _____

12. Point $T(2, -3)$ is rotated 180° about the origin (a rigid motion). What are the coordinates of its image? Write as (x, y) .

Answer: _____