

WORKSHEET MODULE 1/3
MATHEMATICS
CONGRUENCE OF TRIANGLES

1. Fill in the blanks:

a) Two angles are said to be congruent if they have equal _____.

b) Among two congruent angles, one has a measure of 70° , the measure of other angle is _____.

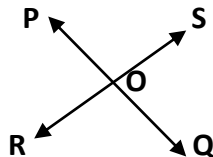
c) If $\triangle ABC \cong \triangle PQR$ then \overline{AB} corresponds to _____.

d) Two line segments are congruent if they have equal _____.

e) If two circles are congruent, they have equal _____.

2. Two circles are congruent to each other. If the radius of one is 6.2cm, find the diameter of the other.

3. In the figure, name the angle which is congruent to $\angle POR$.



4. Two squares ABCD and PQRS are congruent. If perimeter of square ABCD is 56 cm
 Find the length of PQ.

5. If $\triangle ABC \cong \triangle RPQ$, $\angle B = 80^\circ$ and $\angle R = 70^\circ$, find the remaining two angles of both the triangles. .

6. If $\triangle ABC \cong \triangle XYZ$, write the parts of $\triangle XYZ$ that correspond to

a) $\angle B$

b) \overline{YZ}

c) $\angle C$

d) \overline{AC}

7. When $\triangle PQR \cong \triangle ABC$ under the correspondence $\triangle PQR \leftrightarrow \triangle ABC$, write all the corresponding congruent parts of the triangle.

8. Give any two real-life examples for congruent shapes.

9. Write true or false

- i) Two line segments are congruent if they are parallel.
- ii) Two right angles are always congruent.
- iii) If two triangles are equal in area they are congruent.
- iv) Two congruent figures fit each other exactly, when one is put over other.
- v) If two triangles are congruent then their corresponding sides and their corresponding angles are equal.

10. Given two triangles ABC and PQR, how many matchings are possible between them?
