

2. In $\triangle LMN$, $\angle L = 60^\circ$, $\angle M = 50^\circ$. If $\triangle LMN \sim \triangle PQR$ then the value of $\angle R$ is

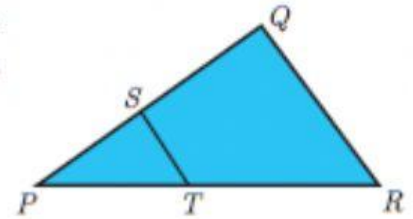
- (1) 40° (2) 70° (3) 30° (4) 110°

3. If $\triangle ABC$ is an isosceles triangle with $\angle C = 90^\circ$ and $AC = 5$ cm, then AB is

- (1) 2.5 cm (2) 5 cm (3) 10 cm (4) $5\sqrt{2}$ cm

4. In a given figure $ST \parallel QR$, $PS = 2$ cm and $SQ = 3$ cm. Then the ratio of the area of $\triangle PQR$ to the area of $\triangle PST$ is

- (1) 25 : 4 (2) 25 : 7
(3) 25 : 11 (4) 25 : 13



5. The perimeters of two similar triangles $\triangle ABC$ and $\triangle PQR$ are 36 cm and 24 cm respectively. If $PQ = 10$ cm, then the length of AB is

- (1) $6\frac{2}{3}$ cm (2) $\frac{10\sqrt{6}}{3}$ cm (3) $66\frac{2}{3}$ cm (4) 15 cm

6. If in $\triangle ABC$, $DE \parallel BC$. $AB = 3.6$ cm, $AC = 2.4$ cm and $AD = 2.1$ cm then the length of AE is

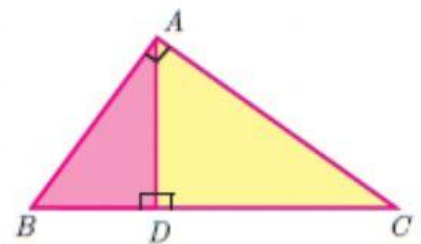
- (1) 1.4 cm (2) 1.8 cm (3) 1.2 cm (4) 1.05 cm

7. In a $\triangle ABC$, AD is the bisector of $\angle BAC$. If $AB = 8$ cm, $BD = 6$ cm and $DC = 3$ cm. The length of the side AC is

- (1) 6 cm (2) 4 cm (3) 3 cm (4) 8 cm

8. In the adjacent figure $\angle BAC = 90^\circ$ and $AD \perp BC$ then

- (1) $BD \cdot CD = BC^2$ (2) $AB \cdot AC = BC^2$
(3) $BD \cdot CD = AD^2$ (4) $AB \cdot AC = AD^2$



9. Two poles of heights 6 m and 11 m stand vertically on a plane ground. If the distance between their feet is 12 m, what is the distance between their tops?

- (1) 13 m (2) 14 m (3) 15 m (4) 12.8 m

10. In the given figure, $PR = 26$ cm, $QR = 24$ cm, $\angle PAQ = 90^\circ$, $PA = 6$ cm and $QA = 8$ cm. Find $\angle PQR$

- (1) 80° (2) 85° (3) 75° (4) 90°



11. A tangent is perpendicular to the radius at the

- (1) centre (2) point of contact (3) infinity (4) chord