



Class 10 Mathematics | Triangles

MCQ WORKSHEET • 15 questions • Choose one correct option • Suggested time: 25 minutes

1. Two triangles have equal corresponding angles. They are:

- A. similar B. always equilateral
C. always congruent D. always equal in area

2. Corresponding sides of similar triangles are in ratio 3:5. Their perimeters are in ratio:

- A. 5:3 B. 9:25 C. 6:10.5 D. 3:5

3. In triangle ABC, $DE \parallel BC$ with D on AB, E on AC. If $AD/DB=2/3$, AE/EC is:

- A. $3/2$ B. $2/5$ C. $2/3$ D. $3/5$

4. For $DE \parallel BC$, $AD=3$, $DB=6$, $AE=4$. Find EC.

- A. 2 B. 8 C. 6 D. 12

5. Two triangles have side lengths 3,4,5 and 6,8,10. They are similar by:

- A. ASA congruence
B. RHS only
C. AAA from given angles
D. SSS

6. Two triangles have two proportional sides and equal included angles. Similarity criterion is:

- A. SAS B. SSA
C. RHS congruence D. ASA congruence

7. In similar triangles ABC and PQR, A corresponds to P and B to Q. Side AC corresponds to:

- A. PR B. QP C. PQ D. QR

8. $DE \parallel BC$ in triangle ABC. If $AD/AB=3/5$ and $BC=20$, DE is:

- A. 10 B. 8 C. 12 D. 15

9. If $AD/DB=AE/EC$ for D on AB and E on AC, then:

- A. $D=E$ B. $DE \perp BC$ C. $AB=AC$ D. $DE \parallel BC$

10. Triangles have angles $(40^\circ, 60^\circ, 80^\circ)$ and $(60^\circ, 80^\circ, 40^\circ)$. They are:

- A. not similar
B. necessarily right-angled
C. similar
D. necessarily congruent

11. If corresponding side ratio is 2:3 and a smaller side is 10 cm, matching larger side is:

- A. 12 cm B. 30 cm C. 20 cm D. 15 cm

12. A 1.5 m stick casts a 2 m shadow. Simultaneously a tower casts 12 m. Tower height is:

- A. 8 m B. 9 m C. 16 m D. 18 m

13. Which pair of triangles is always similar?

- A. Any two isosceles triangles
B. Any two equilateral triangles
C. Any two right triangles
D. Any two scalene triangles

14. $DE \parallel BC$, $AD=4$, $AB=10$ and $AC=15$. AE is:

- A. 10 B. 4 C. 6 D. 9

15. In triangle ABC, D and E divide AB and AC in ratio 1:2 from A. If $BC=18$, DE is:

- A. 3 B. 12 C. 9 D. 6

ANSWER KEY — check after completing all 15 questions

1.A 2.D 3.C 4.B 5.D 6.A 7.A 8.C 9.D 10.C 11.D 12.B 13.B 14.C 15.D