

Chapter - 6

Triangles

1. Which of the following statements is true about the medians of a triangle?

- A. The medians of a triangle are always equal in length.
- B. The medians of a triangle are always perpendicular to each other.
- C. The medians of a triangle always intersect at the circumcenter of the triangle.
- D. The medians of a triangle always intersect at the centroid of the triangle.

Answer: D. The medians of a triangle always intersect at the centroid of the triangle.

2. In a triangle ABC, if $AB = AC$, then the angle opposite to BC is:

- A. 30 degrees
- B. 45 degrees
- C. 60 degrees
- D. 90 degrees

Answer: C. 60 degrees

3. In a triangle ABC, if angle A = 60 degrees and angle B = 50 degrees, then angle C is:

- A. 70 degrees
- B. 80 degrees
- C. 90 degrees
- D. 100 degrees

Answer: D. 100 degrees

4. In a triangle ABC, if angle A = 90 degrees and $AB = AC$, then angle B is:

A. 45 degrees

B. 60 degrees

C. 75 degrees

D. 90 degrees

Answer: A. 45 degrees

5. In a triangle ABC, if angle A = 60 degrees and angle C = 40 degrees, then angle B is:

A. 80 degrees

B. 70 degrees

C. 50 degrees

D. 30 degrees

Answer: B. 70 degrees

6. In a triangle ABC, if angle A = 90 degrees and angle B = 60 degrees, then angle C is:

A. 30 degrees

B. 60 degrees

C. 90 degrees

D. 120 degrees

Answer: D. 120 degrees

7. In a triangle ABC, if $AB = AC$ and angle B = 50 degrees, then angle C is:

A. 40 degrees

B. 50 degrees

C. 80 degrees

D. 100 degrees

Answer: C. 80 degrees

8. In a triangle ABC, if angle A = 60 degrees and angle B = 80 degrees, then angle C is:

A. 40 degrees

B. 50 degrees

C. 70 degrees

D. 90 degrees

Answer: C. 40 degrees

9. In a triangle ABC, if angle A = 90 degrees and angle B = 30 degrees, then angle C is:

A. 30 degrees

B. 45 degrees

C. 60 degrees

D. 90 degrees

Answer: C. 60 degrees

10. In a triangle ABC, if angle A = 90 degrees and angle C = 60 degrees, then angle B is:

A. 30 degrees

B. 45 degrees

C. 60 degrees

D. 90 degrees

Answer: A. 30 degrees

11. In a triangle ABC, if $AB = AC$ and angle B = 80 degrees, then angle C is:

A. 40 degrees

B. 50 degrees

C. 70 degrees

D. 90 degrees

Answer: C. 70 degrees

12. In a triangle ABC, if angle A = 60 degrees and angle B = 70 degrees, then angle C is:

A. 50 degrees

B. 60 degrees

C. 70 degrees

D. 80 degrees

Answer: D. 50 degrees

13. In a triangle ABC, if angle A = 90 degrees and BC = 5 cm, then the length of the altitude from A to BC is:

A. 5 cm

B. 10 cm

C. 15 cm

D. 25 cm

Answer: A. 5 cm

14. In a triangle ABC, if angle A = 90 degrees and AB = 8 cm, then the length of the altitude from A to BC is:

A. 4 cm

B. 6 cm

C. 8 cm

D. 10 cm

Answer: B. 6 cm

15. In a triangle ABC, if angle A = 90 degrees and AB = 6 cm, then the length of the altitude from A to BC is:

- A. 3 cm
- B. 4 cm
- C. 5 cm
- D. 6 cm

Answer: C. 5 cm

16. In a triangle ABC, if angle A = 90 degrees and BC = 12 cm, then the length of the altitude from A to BC is:

- A. 6 cm
- B. 8 cm
- C. 10 cm
- D. 12 cm

Answer: A. 6 cm

17. In a triangle ABC, if angle A = 60 degrees and angle B = 60 degrees, then angle C is:

- A. 30 degrees
- B. 60 degrees
- C. 90 degrees
- D. 120 degrees

Answer: B. 60 degrees

18. In a triangle ABC, if angle A = 40 degrees and angle B = 60 degrees, then angle C is:

- A. 40 degrees
- B. 80 degrees
- C. 100 degrees

D. 120 degrees

Answer: C. 80 degrees

19. In a triangle ABC, if angle A = 70 degrees and angle B = 50 degrees, then angle C is:

A. 60 degrees

B. 70 degrees

C. 80 degrees

D. 90 degrees

Answer: B. 60 degrees

20. In a triangle ABC, if angle A = 50 degrees and angle B = 60 degrees, then angle C is:

A. 40 degrees

B. 70 degrees

C. 80 degrees

D. 90 degrees

Answer: A. 70 degrees

21. In a triangle ABC, if angle A = 40 degrees and angle B = 80 degrees, then angle C is:

A. 60 degrees

B. 70 degrees

C. 80 degrees

D. 90 degrees

Answer: A. 60 degrees

22. In a triangle ABC, if angle A = 50 degrees and angle B = 80 degrees, then angle C is:

A. 50 degrees

B. 60 degrees

C. 70 degrees

D. 80 degrees

Answer: C. 50 degrees

23. In a triangle ABC, if angle A = 60 degrees and angle B = 50 degrees, then angle C is:

A. 40 degrees

B. 50 degrees

C. 70 degrees

D. 90 degrees

Answer: A. 70 degrees

24. In a triangle ABC, if angle A = 60 degrees and angle B = 40 degrees, then angle C is:

A. 40 degrees

B. 50 degrees

C. 80 degrees

D. 90 degrees

Answer: B. 80 degrees

25. In a triangle ABC, if angle A = 30 degrees and angle B = 60 degrees, then angle C is:

A. 30 degrees

B. 60 degrees

C. 90 degrees

D. 120 degrees

Answer: C. 90 degrees.

26. In a triangle ABC, if angle A = 60 degrees and angle B = 70 degrees, then angle C is:

A. 50 degrees

B. 60 degrees

C. 70 degrees

D. 80 degrees

Answer: D. 50 degrees

27. In a triangle ABC, if angle A = 70 degrees and angle B = 40 degrees, then angle C is:

A. 50 degrees

B. 70 degrees

C. 80 degrees

D. 110 degrees

Answer: D. 70 degrees

28. In a triangle ABC, if angle A = 80 degrees and angle B = 50 degrees, then angle C is:

A. 50 degrees

B. 60 degrees

C. 70 degrees

D. 100 degrees

Answer: A. 50 degrees

29. In a triangle ABC, if angle A = 20 degrees and angle B = 70 degrees, then angle C is:

A. 90 degrees

B. 100 degrees

C. 110 degrees

D. 120 degrees

Answer: C. 90 degrees

30. In a triangle ABC, if angle A = 30 degrees and angle B = 40 degrees, then angle C is:

A. 50 degrees

B. 60 degrees

C. 70 degrees

D. 80 degrees

Answer: D. 110 degrees

31. In a triangle ABC, if angle A = 50 degrees and angle B = 40 degrees, then angle C is:

A. 50 degrees

B. 70 degrees

C. 80 degrees

D. 90 degrees

Answer: C. 90 degrees

32. In a triangle ABC, if angle A = 60 degrees and angle B = 50 degrees, then angle C is:

A. 30 degrees

B. 70 degrees

C. 80 degrees

D. 90 degrees

Answer: B. 70 degrees

33. In a triangle ABC, if angle A = 70 degrees and angle B = 60 degrees, then angle C is:

A. 50 degrees

B. 70 degrees

C. 80 degrees

D. 110 degrees

Answer: A. 50 degrees

34. In a triangle ABC, if angle A = 50 degrees and angle B = 60 degrees, then angle C is:

A. 30 degrees

B. 70 degrees

C. 80 degrees

D. 100 degrees

Answer: C. 70 degrees

35. In a triangle ABC, if angle A = 40 degrees and angle B = 80 degrees, then angle C is:

A. 60 degrees

B. 70 degrees

C. 80 degrees

D. 100 degrees

Answer: A. 60 degrees

36. In a triangle ABC, if angle A = 20 degrees and angle B = 20 degrees, then angle C is:

A. 20 degrees

B. 40 degrees

C. 120 degrees

D. 140 degrees

Answer: D. 140 degrees

37. In a triangle ABC, if angle A = 80 degrees and angle B = 20 degrees, then angle C is:

- A. 10 degrees
- B. 80 degrees
- C. 100 degrees
- D. 120 degrees

Answer: A. 80 degrees

38. In a triangle ABC, if angle A = 40 degrees and angle B = 60 degrees, then angle C is:

- A. 30 degrees
- B. 80 degrees
- C. 100 degrees
- D. 120 degrees

Answer: A. 80 degrees

39. In a triangle ABC, if angle A = 30 degrees and angle B = 80 degrees, then angle C is:

- A. 70 degrees
- B. 80 degrees
- C. 90 degrees
- D. 100 degrees

Answer: B. 70 degrees

40. In a triangle ABC, if angle A = 70 degrees and angle B = 50 degrees, then angle C is:

- A. 60 degrees
- B. 70 degrees
- C. 80 degrees

D. 100 degrees

Answer: C. 60 degrees

41. In a triangle ABC, if angle A = 60 degrees and angle B = 80 degrees, then angle C is:

A. 40 degrees

B. 50 degrees

C. 60 degrees

D. 80 degrees

Answer: A. 40 degrees

42. In a triangle ABC, if angle A = 50 degrees and angle B = 70 degrees, then angle C is:

A. 60 degrees

B. 70 degrees

C. 80 degrees

D. 100 degrees

Answer: C. 60 degrees

43. In a triangle ABC, if angle A = 40 degrees and angle B = 50 degrees, then angle C is:

A. 60 degrees

B. 70 degrees

C. 80 degrees

D. 90 degrees

Answer: C. 90 degrees

44. In a triangle ABC, if angle A = 60 degrees and angle B = 50 degrees, then angle C is:

A. 70 degrees

B. 80 degrees

- C. 90 degrees
- D. 100 degrees

Answer: B. 70 degrees

45. In a triangle ABC, if angle A = 50 degrees and angle B = 40 degrees, then angle C is:

- A. 60 degrees
- B. 70 degrees
- C. 80 degrees
- D. 90 degrees

Answer: D. 90 degrees

46. In a triangle ABC, if angle A = 60 degrees and angle B = 70 degrees, then angle C is:

- A. 50 degrees
- B. 60 degrees
- C. 70 degrees
- D. 80 degrees

Answer: A. 50 degrees

47. In a triangle ABC, if angle A = 70 degrees and angle B = 60 degrees, then angle C is:

- A. 50 degrees
- B. 60 degrees
- C. 70 degrees
- D. 80 degrees

Answer: A. 50 degrees

48. In a triangle ABC, if angle A = 80 degrees and angle B = 50 degrees, then angle C is:

A. 50 degrees

B. 60 degrees

C. 70 degrees

D. 80 degrees

Answer: A. 50 degrees

49. In a triangle ABC, if angle A = 40 degrees and angle B = 80 degrees, then angle C is:

A. 60 degrees

B. 70 degrees

C. 80 degrees

D. 100 degrees

Answer: D. 60 degrees

50. In a triangle ABC, if angle A = 50 degrees and angle B = 80 degrees, then angle C is:

A. 50 degrees

B. 60 degrees

C. 70 degrees

D. 80 degrees

Answer: A. 50 degrees