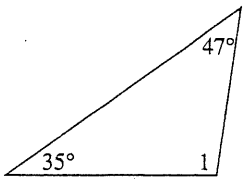
TRIANGLES: ANSWERS

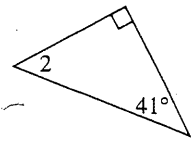
Find the measure of each numbered angle.

1.



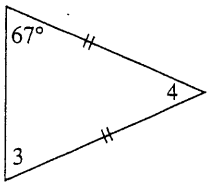
∠1 = 98°

2.



∠2 = 49°

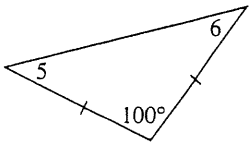
3.



∠3 = 67°

∠4 = 46°

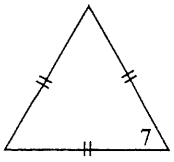
4.



∠5 = 40°

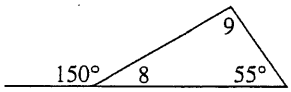
∠6 = 40°

5.



∠7 = 60°

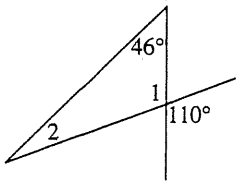
6.



∠8 = 30°

∠9 = 95°

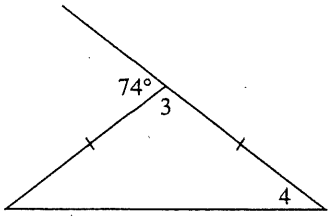
7.



∠1 = 110°

∠2 = 24°

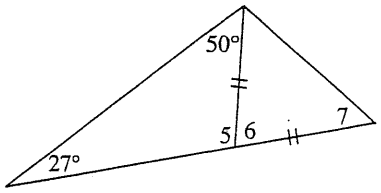
8.



∠3 = 106°

∠4 = 37°

9.

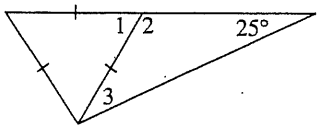


∠5 = 103°

∠6 = 77°

∠7 = 51.5°

10.

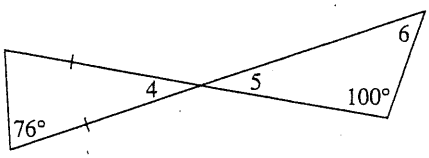


∠1 = 60°

∠2 = 120°

∠3 = 35°

11.

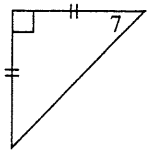


∠4 = 28°

∠5 = 28°

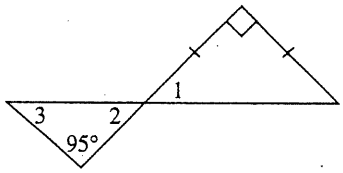
∠6 = 52°

12.



∠7 = 45°

13.

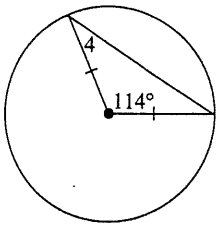


∠1 = 45°

∠2 = 45°

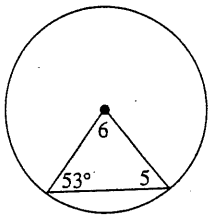
∠3 = 40°

14.



∠4 = 33°

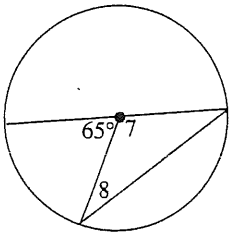
15.



∠5 = 53°

∠6 = 74°

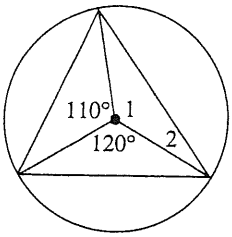
16.



∠7 = 115°

∠8 = 32.5°

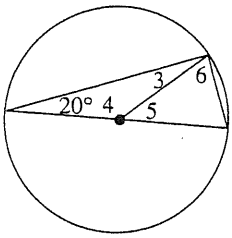
17.



∠1 = 130°

∠2 = 25°

18.



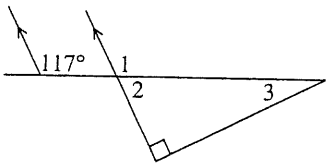
∠3 = 20°

∠4 = 140°

∠5 = 40°

∠6 = 70°

19.

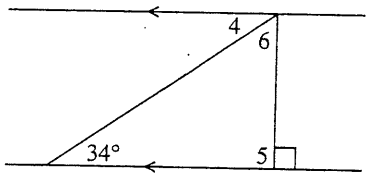


∠1 = 117°

∠2 = 63°

∠3 = 27°

20.

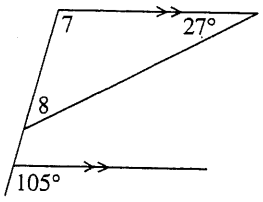


∠4 = 34°

∠5 = 90°

∠6 = 56°

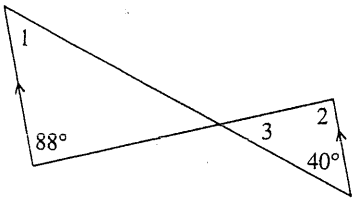
21.



∠7 = 105°

∠8 = 48°

22.

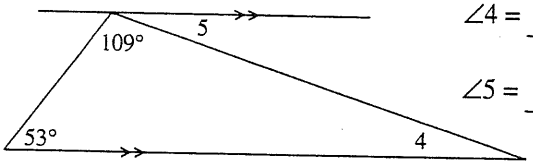


∠1 = 40°

∠2 = 88°

∠3 = 52°

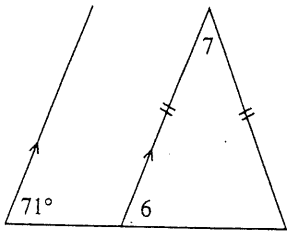
23.



∠4 = 18°

∠5 = 18°

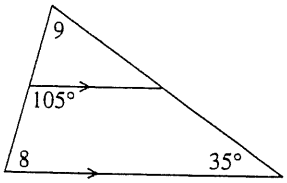
24.



∠6 = 71°

∠7 = 38°

25.

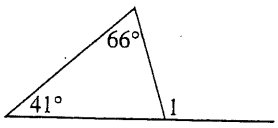


∠8 = 75°

∠9 = 70°

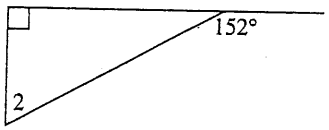
For questions 26 to 35, you may have to find the measures of other angles to determine the size of the numbered angle.

26.



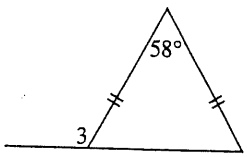
∠1 = 107°

27.



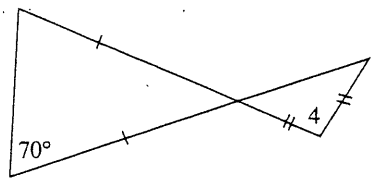
∠2 = 62°

28.



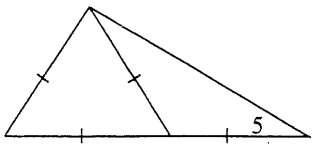
∠3 = 119°

29.



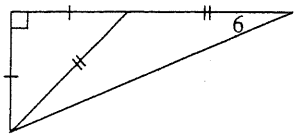
∠4 = *100°*

30.



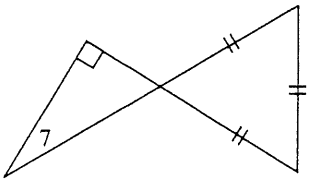
∠5 = *30°*

31.



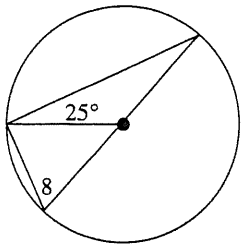
∠6 = *22.5°*

32.



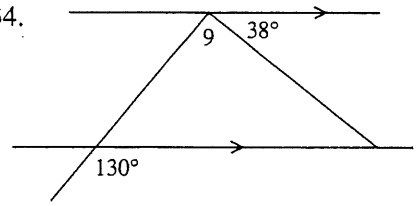
∠7 = *30°*

33.



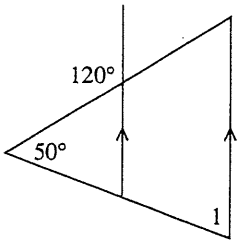
∠8 = *65°*

34.



∠9 = *92°*

35.



∠1 = *70°*

36. Find the measures of the three angles of ΔABC if

a) ∠A is twice ∠B and ∠C is three times ∠B.

A = 60°, B = 30°, C = 90°

b) ∠A = ∠B and ∠C is 36° more than ∠A.

A = B = 48°, C = 84°

c) ∠B is twice ∠A and ∠C is 10° less than ∠B.

A = 38°, B = 76°, C = 66°