Chapter- Triangles
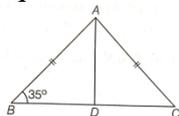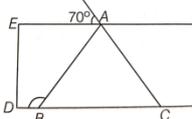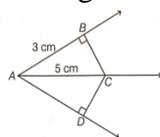
1. In ΔABC if A=45°, B=70° then shortest side is
   a) AB   b) BC   c) CA   d) None of these

2. ABC is an isosceles triangle such that AB=BC and AD is the median to the base BC. Then, BAD is equal to

   a) 55°   b) 70°   c) 35°   d) 110°

3. In the given figure, if AE||DC and AB=AC, the value of ABD is


   a) 70°   b) 110°   c) 120°   d) 130°

4. In the given figure, if AC is bisector of BAD such that AB=3cm and AC=5cm, then CD is equal to


   a) 2cm   b) 3cm   c) 4cm   d) 5cm

5. In the given figure, ABC is an isosceles triangle whose side AC is produced to E. through C, CD is drawn parallel to BA. The value of x is
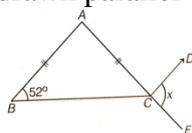

   a) 52°   b) 76°   c) 156°   d) 104°

6. Is it possible to construct a triangle with lengths of its sides as 8cm, 7cm and 4cm? Give reason for your answer.

7. In the given figure, if m||n and a:b=2:3, then what will be the measure of x?
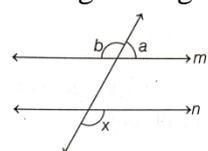
8. In quadrilateral ABCD, AC=AD and AB bisects A. show that ΔABC≅ ΔABD
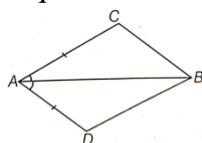
9. The statement "An exterior angle of a triangle is less than either of its interior opposite angles", is true or false?

10. ABC is an isosceles triangle in which altitudes BE and CF are drawn to equal sides AC and AB, respectively. Show that these altitudes are equal.
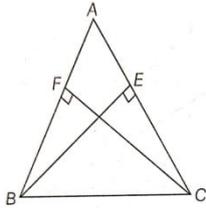
11. In the given figure, if PQ > PR and QS, RS are the bisectors of Q, R respectively. Then prove that SQ > SR.
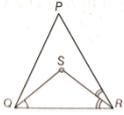
12. In the given figure, AB=DE, BC=EF and median AP= median DQ. Prove that ∟B=∟E
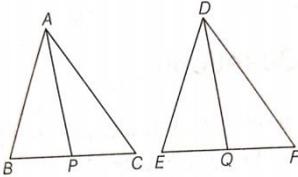
13. In PQR, if P=100°, PM bisects P and PM is perpendicular QR, then find Q.

14. In ABC≅ *PQR* and AB=4cm, B=90°,BC=3cm, PQ=4cm amd Q=90°. Then write the information which is left out.

15. In the given figure, AE||BD and CA||DE. Find the measures of x and y.
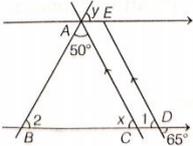
16. In the given figure, X=62° and XYZ=54°. If YO and ZO are the bisectors of XYZ and XZY, respectively of XYZ. Then find the value of OZY and YOZ.
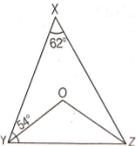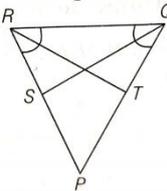

17. It is given figure, ABCD is a square and EF is parallel to diagonal BD and EM=FM. Prove that
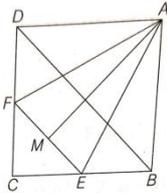
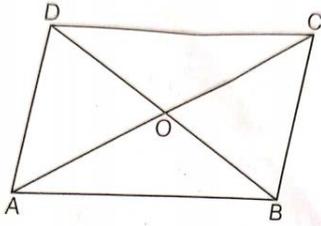   a) DF=BE   b) AM bisects BAD.

18. In the given figure, RS=QT and QS=RT. Prove that PQ=PR

19. ABC is a triangle in which B=2C. D is a point on side BC such that AD bisects BAC and AB=CD. Prove that BAC=72°

20. In the given figure, diagonals AC and BD of quadrilateral ABCD intersect at O such that OB=OD. If AD=BC, then show that a) ar(AOD)(=ar(BOC)   b) ar(ABD)=ar(ABC)   c) DA∥CB or ABCD is a parallelogram.

21. Two triangles having equal areas and having one side of the triangle equal to one side of the other have their corresponding altitudes equal. Prove that altitudes of both triangles are equal.

22. ABC is an isosceles triangle in which AB=AC. D,E and F are the mid-points of the sides BC,AC and AB, respectively. Prove that DE=DF.

23. ABCD is a parallelogram in which BC is produced to E such that CE=BC. AE intersects CD at F. if ar(DFB)=3cm^2, then find the area of the parallelogram ABCD.