# INDIAN SCHOOL AL WADI AL KABIR

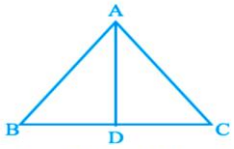
Dept. Of Mathematics (2015-2016)

Class:7 WINTER HOLIDAY PRACTICE QUESTIONS

1. ABC is an isosceles triangle with AB = AC and D is the mid-point of base BC (Fig. 6.48).

   (a) State three pairs of equal parts in the triangles ABD and ACD.

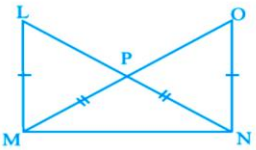
   (b) Is $\Delta ABD \cong \Delta ACD$. If so why?




2. In Fig. 6.49, it is given that LM = ON and NL = MO

   (a) State the three pairs of equal parts in the triangles NOM and MLN.

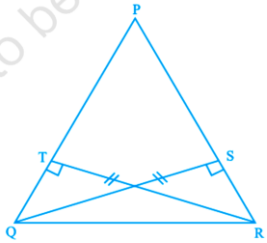
   (b) Is $\Delta NOM \cong \Delta MLN$. Give reason?




3. In Fig. 6.55, QS ⊥ PR, RT ⊥ PQ and QS = RT.

   (i) Is $\Delta$ QSR ≅ $\Delta$ RTQ? Give reasons.

   (ii) Is $\angle$ PQR = $\angle$ PRQ? Give reasons.




4. Find the perimeter and area of a rectangle whose length is 24cm and a diagonal 26cm?

5. In an isosceles triangle QRS, QR=RS=7 cm and QS=8 cm. The perpendicular from Q to RS is 8 cm. Find the area of the triangle. Also, find the height from R to QS.

6. By selling a chair for ₹ 1440, a shopkeeper loses 10%. At what price did he buy it?

7. A ship sails 30 km due west and then 40km due south. At the end of this journey, how far is the ship from its starting position?

8. A parallelogram shaped garden has an area of 112 $m^2$ and a height of 8m. Find the base.

9. A square of length 10m is bent to form a rectangle of length 4m. Find the width. Which has more area- the square or the rectangle?

10. A wall is to be painted. The dimension of the wall is 12m by 15m and there is a window with dimensions 3m by 4m on it. Find the area of the wall to be painted. Also find the cost of painting it at the rate of ₹ 45 per sq m.

11. Two plots of land have equal area. One plot is a square of side 6 m and the other plot is a rectangle of length 9m. Find the width of the rectangular plot. Find the length of the fence required for the rectangular plot.

12. The strength of a school is 2000. If 40% of the students are girls, then how many boys are there in the school?

13. A ladder 17m long reaches a window of a building 15m above the ground. Find the distance of the foot of the ladder from the building?

14. The perimeter of a rectangular sheet is 100cm. if the length is 35cm, find its breadth. Also find the area.

15. In how much time will ₹ 12,000 earn an interest of ₹ 4800 at 2 % interest per annum?

16. At what rate per cent per annum will ₹ 700 produce ₹ 168 as simple interest in 2 years?

17. If the angles of a triangle are in the ratio 2 : 3 : 4, find the value of each angle?

18. A farmer borrowed ₹ 2400 at 12% interest per annum. At the end of $2\frac{1}{2}$ years, he cleared his account by paying ₹ 1200 and a cow. Find the cost of the cow?

19. The product of two rational numbers is $\frac{3}{-14}$. One rational number is $\frac{5}{12}$. Find the other.

20. Find six rational numbers between $\frac{-4}{8}$ and $\frac{-3}{4}$

21. A carton contains 40 boxes of nails and each box weighs $3\frac{3}{4}$ kg. How much would this carton of nails weigh?

22. Draw a line XY. Take a point C outside it. Draw a line parallel to XY using a ruler and compass only.

23. Draw a Δ ABC in which AC= 6cm, $\angle A = 90°$ $\angle B = 60°$

24. Draw Δ ABC in which BC= 6cm, $\angle B = 35°$ and $\angle C = 100°$. What is the measure of $\angle A$

25. Construct an isosceles triangle in which the lengths of each of its equal sides is 6.5 cm and the angle between them is 110°

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