



INDIAN SCHOOL AL WADI AL KABIR

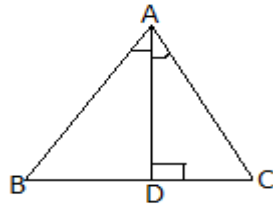
Winter Holiday Hoemwork 2015-16

Class: VII

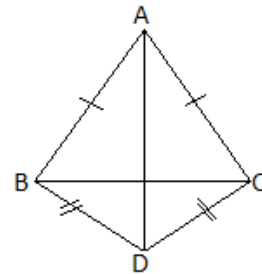
Mathematics

Date: 14 /12/15

1. The two legs of a right triangle are equal and the square of its hypotenuse is 50. Find the length of each leg.
2. A man goes 35 m due west and then 12 m due north. How far is he from the starting point?
3. The diagonals of a rhombus are of lengths 32 cm and 24 cm. Find the perimeter of the rhombus.
4. In $\triangle ABC$, AD is the bisector of $\angle A$. If AD is perpendicular to BC, show that $\triangle ABC$ is isosceles.

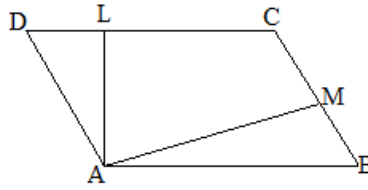


5. Construct a $\triangle RUN$ in which $RU = 5$ cm, $RN = 4.4$ cm and $\angle R = 60^\circ$.
6. $\triangle ABC$ is an isosceles triangle in which $AB = AC$. Also D is a point such that $BD = CD$. Prove that AD bisects $\angle A$ and $\angle D$.



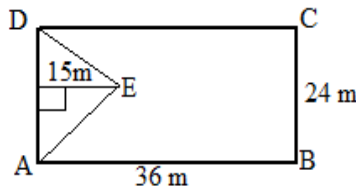
7. Is it possible to draw a triangle, the lengths of whose sides are 5 cm, 7 cm and 12 cm.
8. Draw a line AB and take a point P outside it. Draw a line parallel to AB and passing through the point P.
9. Construct a right angled triangle whose hypotenuse measures 6 cm and one of the sides measures 3.5 cm.
10. Construct a $\triangle ABC$ in which $AB = 6.2$ cm, $\angle A = 45^\circ$ and $\angle C = 75^\circ$.

11. In a parallelogram ABCD, AB = 18 cm, BC = 12 cm, AL ⊥ DC and AM ⊥ BC
If AL = 6.4 cm, find AM.



12. Find the altitude of the triangular region whose base is 28 m and area is 224 m².
13. Represent the following rational numbers on the same number line: $-\frac{2}{3}$, $\frac{2}{3}$, 0, $\frac{5}{3}$
14. Find 5 rational numbers between -4 and -5.
15. What should be added to $\frac{-7}{8}$ to get $\frac{5}{9}$.
16. What percent of 1 hour is 36 seconds?
17. Mr. Narayan saves 20% of his salary. If he receives ₹ 20000 per month as his salary, find his monthly expenditure.
18. A shopkeeper sold an article at the profit of 10%. If CP = ₹ 240, find SP.
19. In what time will ₹ 5600 amount to ₹ 6720 at 8% per annum.
20. Find SI and amount on ₹ 8600 at the end of 3 years at 5% p.a.
21. An article was bought for ₹ 400 and sold for ₹ 336. Find the loss and loss percent.
22. Convert into percentage: (1) $\frac{11}{40}$ (2) 0.008

23. ABCD is a rectangle in which length is 36 m and breadth is 24 m. Calculate the area of region AEDCB.



24. Arrange the following in ascending order: $\frac{-3}{5}$, $\frac{7}{-10}$, $\frac{-5}{6}$
25. Is it possible to construct a ΔPQR with PQ = 4cm, ∠P = 135° and ∠Q = 50°. Give reason.

