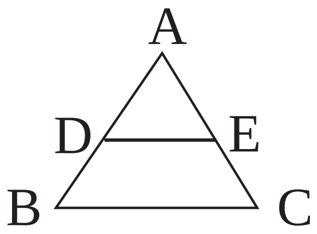
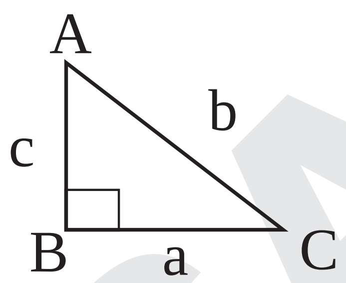
8. SIMILAR TRIANGLES

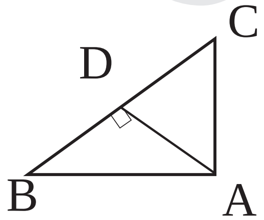
1. The ratio of the corresponding sides of the two similar triangles is 1:3, then the ratio of their areas is ____
2. ΔPQR is formed by joining the mid points of the sides of ΔABC, then the ratio of the areas of the ΔPQR and ΔABC is ____
3. D, E are the mid-points of the sides AB and AC of the ΔABC. If DE measures 4 cm, then the side BC measures ____
4. If the side of an equilateral triangle is 8 cm, then its area is ____
5. In the given figure DE//BC, AD = 6 cm, DB=8 cm and AE=9 cm, then EC = ____



6. In ΔABC $\angle B=90^0$ then b^2 = ____

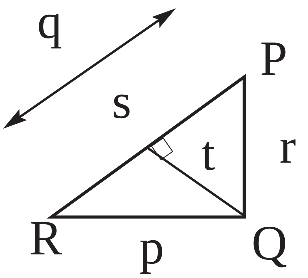


7. Two congruent polygons are ____
8. In the given figure $AD \perp BC$, then $AB^2 + CD^2$ = ____

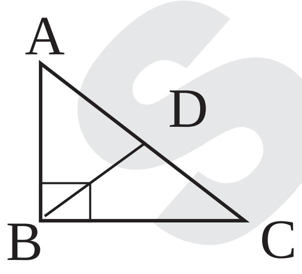


9. The length of the diagonal of the square is $5\sqrt{2}$ cm, then the area of the square in cm^2 is ____
10. The symbol for 'is similar to' is ____
11. $\Delta ABC \sim \Delta PQR$, if AB = 3.6, PQ = 2.4 and PR = 5.4, then AC = ____

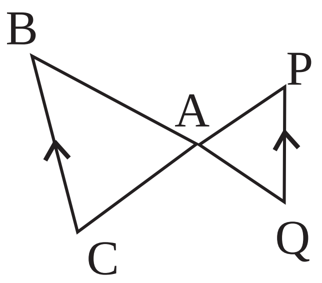
12. In the given figure, $\angle Q = 90^0$ and $\angle S = 90^0$; QS = t, PQ = r QR = P and PR = q then $1/t^2$ = ____



13. $\Delta ABC \sim \Delta PQR$, if AB = 6, BC = 4, AC = 8 and PR = 6 then PQ+QR = ____
14. A man goes 7 metres due east and then 24 metres due north, then his distance from starting point is ____
15. If $\Delta ABC \sim \Delta DEF$, $\angle A = 50^0$ then $\angle E + \angle F$ = ____
16. The side of a rhombus with diagonals 16 cm & 30 cm is ____
17. Basic Proportionality Theorem is also known as ____
18. A ladder is placed in such a way that its foot is at a distance of 15 metres from the wall and its top reaches a window 8 m above the ground. Then the length of the ladder is ____
19. $\Delta ABC \sim \Delta PQR$, if $m\angle A = 50^0$ and $m\angle B = 60^0$ then $m\angle R$ = ____
20. In the given figure, AC = 13 cm, then the length of the Median BD = ____



21. The areas of two similar triangles are 16 cm^2 and 25 cm^2 respectively. Then the ratio of their corresponding sides is ____
22. In ΔABC, DE//BC and DE = 1/2BC, then AD:DB = ____
23. In the given figure $\Delta ACB \sim \Delta APQ$. If AB = 6 cm, BC = 8 cm and PQ = 4 cm, then AQ = ____



24. The relation between a diagonal of a Square and its side is ____
25. In ΔABC, $\angle B=90^0$ and $\overline{BM}$ is an altitude. then ΔAMB is similar to ____
26. In the rhombus ABCD, AB = 6cm, then $AC^2 + BD^2 =$ ____
27. The area of an equilateral triangle whose height 'h' is ____
28. If the ratio of the medians of two similar triangles is 1:2, then the ratio of their areas is ____
29. In an equilateral triangle ABC, if $AD \perp BC$ then, $3AB^2 =$ ____
30. The length of the diagonal of a Square is $5\sqrt{2}$ cm, then the area of the square is ____

ANSWERS

1) 1:9; 2) 1:4; 3) 8 cm; 4) 16 $\sqrt{3}cm^2$; 5) 12 cm; 6) $b^2 = a^2+c^2$; 7) similar;
8) BD^2+AC^2; 9) 25; 10) ~; 11) 1.8;

12) $\frac{1}{p^2}+\frac{1}{r^2}$; 13) 10; 14) 25m; 15) 130^0; 16) 17 cm; 17) Thales Theorem; 18) 17 m; 19) 70^0; 20) 6.5 cm; 21) 4:5; 22) 1:1; 23) 3 cm; 24) diagonal = $\sqrt{2}$. Side; 25) ΔABC; 26) 144; 27) $h^2/\sqrt{3}$; 28) 1:4; 29) $4AD^2$; 30) 25 cm^2