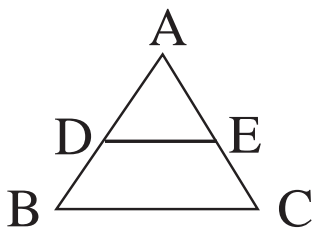
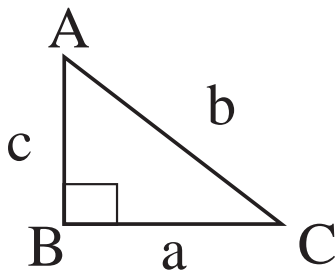


8. SIMILAR TRIANGLES

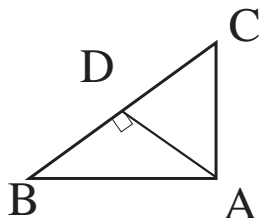
1. The ratio of the corresponding sides of the two similar triangles is 1:3, then the ratio of their areas is _____
2. ΔPQR is formed by joining the mid points of the sides of ΔABC , then the ratio of the areas of the ΔPQR and ΔABC is _____
3. D, E are the mid-points of the sides AB and AC of the ΔABC . 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 $DE \parallel BC$, $AD = 6$ cm, $DB = 8$ cm and $AE = 9$ cm, then $EC =$ _____



6. In ΔABC $\angle B = 90^\circ$ then $b^2 =$ _____

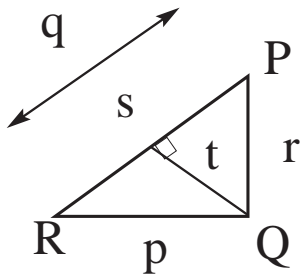


7. Two congruent polygons are _____
8. In the given figure $AD \perp BC$, then $AB^2 + CD^2 =$ _____

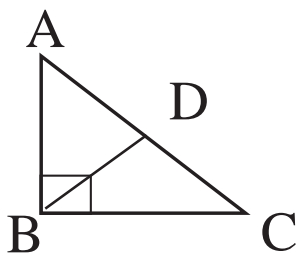


9. The length of the diagonal of the square is $5\sqrt{2}$ cm, then the area of the square in cm^2 is _____
10. The symbol for 'is similar to' is _____
11. $\Delta ABC \sim \Delta PQR$, if $AB = 3.6$, $PQ = 2.4$ and $PR = 5.4$, then $AC =$ _____

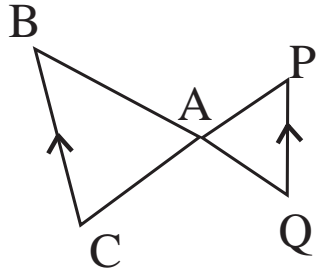
12. In the given figure, $\angle Q = 90^\circ$ and $\angle S = 90^\circ$; $QS = t$, $PQ = r$ $QR = p$ and $PR = q$ then $1/t^2 = \underline{\hspace{2cm}}$



13. $\triangle ABC \sim \triangle PQR$, if $AB = 6$, $BC = 4$, $AC = 8$ and $PR = 6$ then $PQ + QR = \underline{\hspace{2cm}}$
14. A man goes 7 metres due east and then 24 metres due north, then his distance from starting point is $\underline{\hspace{2cm}}$
15. If $\triangle ABC \sim \triangle DEF$, $\angle A = 50^\circ$ then $\angle E + \angle F = \underline{\hspace{2cm}}$
16. The side of a rhombus with diagonals 16 cm & 30 cm is $\underline{\hspace{2cm}}$
17. Basic Proportionality Theorem is also known as $\underline{\hspace{2cm}}$
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 $\underline{\hspace{2cm}}$
19. $\triangle ABC \sim \triangle PQR$, if $m\angle A = 50^\circ$ and $m\angle B = 60^\circ$ then $m\angle R = \underline{\hspace{2cm}}$
20. In the given figure, $AC = 13$ cm, then the length of the Median $BD = \underline{\hspace{2cm}}$



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



24. The relation between a diagonal of a Square and its side is _____
25. In $\triangle ABC$, $\angle B = 90^\circ$ and \overline{BM} is an altitude. then $\triangle AMB$ is similar to _____
26. In the rhombus ABCD, $AB = 6\text{cm}$, 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 $5\sqrt{2}\text{ cm}$, then the area of the square is _____

ANSWERS

1) 1:9; 2) 1:4; 3) 8 cm; 4) $16\sqrt{3}\text{cm}^2$; 5) 12 cm; 6) $b^2 = a^2 + c^2$; 7) similar;

8) $BD^2 + AC^2$; 9) 25; 10) \sim ; 11) 1.8;

12) $\frac{1}{p^2} + \frac{1}{r^2}$; 13) 10; 14) 25m; 15) 130° ;

16) 17 cm; 17) Thales

Theorem; 18) 17 m; 19) 70° ; 20) 6.5 cm; 21) 4:5; 22) 1:1; 23) 3 cm; 24) diagonal = $\sqrt{2}$. Side; 25) $\triangle ABC$; 26) 144; 27) $h^2/\sqrt{3}$; 28) 1:4; 29) $4AD^2$; 30) 25 cm^2