

Chapter: 4

Q.1 Choose the correct alternative.

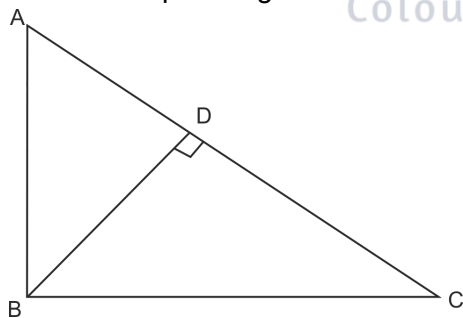
(4)

- 1) The point of concurrence of three altitudes in a triangle is called of the triangle.
 - a. orthocentre
 - b. centroid
 - c. centre
 - d. All of these
- 2) For all types of triangles the location of G (Centroid) is in the interior of the triangles.
 - a. True
 - b. False
- 3) The orthocentre of an obtuse angled triangle is in the of the triangle.
 - a. interior
 - b. exterior
 - c. vertex
 - d. none of these
- 5) The centroid divides each median in the ratio.
 - a. 1 : 2
 - b. 1 : 3
 - c. 2 : 1
 - d. 3 : 1

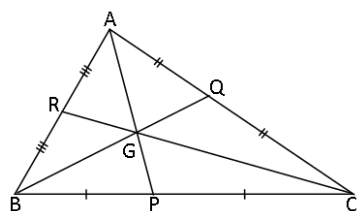
Q.2 Attempt the following questions. (Any three)

(6)

- 1) Draw an isosceles triangle. Draw all of its medians and altitudes. Write your observation about their points of concurrence.
- 2) With the help of diagram show the orthocentre of right angled triangle.



3)

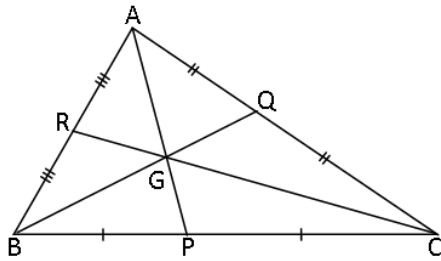


Point G is the centroid of $\triangle ABC$

If $AP = 6$ then $AG = \dots\dots\dots$ and $GP = \dots\dots\dots$

- 4) What do you observe about the circumcentre (C), incentre (I), centroid (G) and orthocentre (O), of equilateral triangle.

5)



Point G is the centroid of $\triangle ABC$

If $l(BG) = 6$ then $l(BQ) = \dots\dots\dots$

Q.3 Solve the following questions. (Any two)

(6)

1)

Draw an obtuse angled $\triangle LMN$. Draw its altitudes and denote the orthocentre by 'O'.

4)

Draw a right angled $\triangle XYZ$. Draw its medians and show their point of concurrence by G.

3)

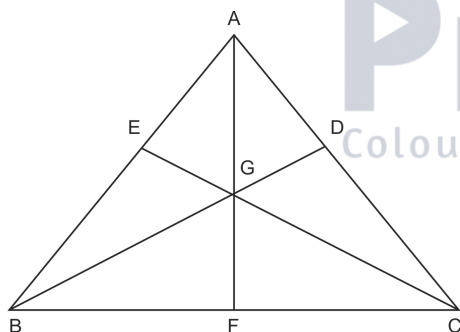
Draw an obtuse angled. $\triangle STV$. Draw its Medians and show the centroid.

Q.4 Answer the following questions

(4)

Q.4

(4)



G is the centroid of triangle ABC. Find $l(GD)$, $l(EG)$ and $l(AG)$.

$l(BG) = 6 \text{ cm}$, $l(GC) = 9 \text{ cm}$, $l(FG) = 5 \text{ cm}$