CENTROID

1. In a ΔABC, all 3 medians AD, BE and CF intersect at 'O'. If area of ΔABC, is equal to $102cm^2$. Find the area of quadrilateral BDOF ?

A) $61\,cm^2$ B) $51\,cm^2$ C) $34\,cm^2$ D) $36\,cm^2$

2. In a ΔABC, $\angle B=90°$, medians AD and CF intersect at O. Then find the ratio of areas of ΔAOC, to $\square BDOF$

A) 2:1 B) 1:1 C) 3:2 D) 2:3

3. In ΔPQR, C is the centroid and PQ = 30 cm, QR = 36 cm and PR = 50 cm. If D is the mid point of QR, then CD =?

A) $\frac{4\sqrt{86}}{3}$ B) $\frac{2\sqrt{86}}{3}$ C) $\frac{5\sqrt{86}}{3}$ D) $\frac{\sqrt{86}}{3}$

4. In ΔABC, AB = 6 cm, AC = 8 cm and BC = 9 cm then find the length of median AD?

A) $\frac{\sqrt{119}}{2}$ B) $\frac{\sqrt{317}}{2}$ C) $\frac{\sqrt{115}}{2}$ D) $\frac{\sqrt{313}}{2}$

5. G is the centroid of equilateral triangle ABC, AB = 10 cm then AG =?

A) $\frac{5\sqrt{3}}{3}\,cm$ B) $\frac{10\sqrt{3}}{3}\,cm$ C) $5\sqrt{3}\,cm$ D) $10\sqrt{3}\,cm$

6. In ΔABC, medians BE and CF intersect at 90°, AB = 19 cm and AC = 22 cm then BC = ?

A) 12 B) 13 C) 14 D) 15

7. In ΔABC, medians BE and CF intersect at 90°. BE = 9cm, CF = 6cm then AC =?

A) 9cm B) 8cm C) 10cm D) 12 cm

8. The unequal side of an isosceles triangle is 2cm. The medians drawn to the equal sides are perpendicular. The area of triangle is

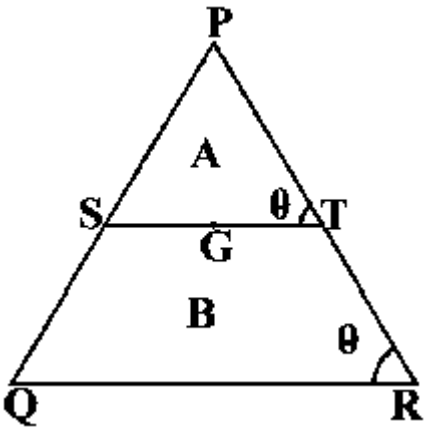
A) $1cm^2$ B) $3cm^2$ C) $4cm^2$ D) $2cm^2$

9. The length of two medians of an isosceles triangle are 9cm and 20.5cm respectively. Find the area of isosceles triangle?

A) CND B) $90cm^2$ C) $150cm^2$ D) $120cm^2$

10. In the given figure, G is a centroid of ΔPQR,

Find the ratio of the area of region A to that of the area of region B.



A) 4/5 B) 9/4 C) 4/9 D) 2

11. In ΔABC, D and E are two points on AB and AC respectively such that AD : DB = 1 : 3. EC : EA = 1 : 3. O is the mid point of DE. Then find the ratio of area of ΔBOC, to ΔABC,?

A) 1 : 2 B) 2 : 3 C) 3 : 4 D) 1 : 3

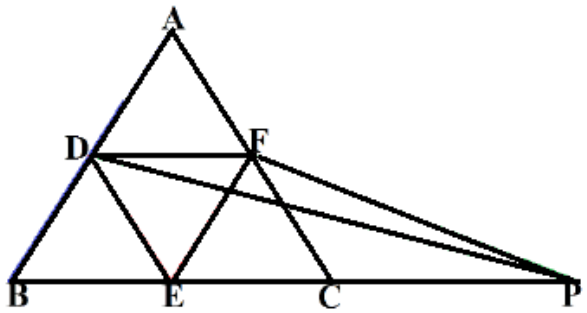
12. In ΔABC, median AD is perpendicular to side AB then $\frac{\tan A}{\tan B} = ?$

A) 0 B) 1 C) 2 D) –2

13. In triangle ABC, AD is a median and P is a point on AD such that AP:PD = 3 : 4. Then $ar(\Delta APB) : ar(\Delta ABC)?$

A) 2:7 B) 3:4 C) 3:7 D) 3:14

14. In ΔABC, the line BC extend upto point P. D, F arethe mid points of lines AB & AC. Area ΔDFP : area $\Delta ABC = ?$



A) 1:2 B) 1:4 C) 1:6 D) 2:3

15. G is centroid of ΔPQR, The medians PS and QT intersect at right angles. If the length of PS and QT are 60cm and 63cm respectively then the length of PQ is ?

A) 48 B) 58 C) 62 D) 64