CENTROIDS

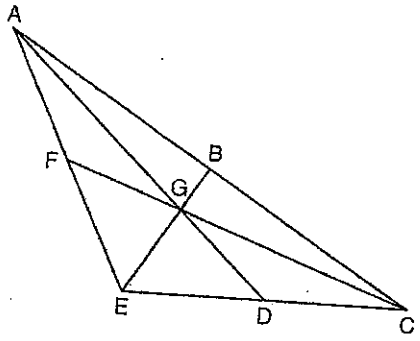
1) In the diagram below of ΔACE, medians $\overline{AD}$, $\overline{EB}$, and $\overline{CF}$ intersect at G. The length of $\overline{FG}$ is 12 cm. What is the length, in centimeters, of $\overline{GC}$?

1) 24

2) 12

3) 6

4) 4



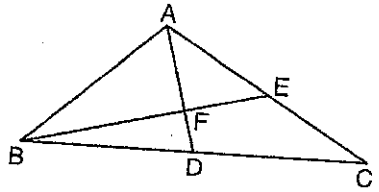
2) In the diagram of ΔABC below, medians $\overline{AD}$ and $\overline{BE}$ intersect at point F. If $AF = 6$, what is the length of $\overline{FD}$?

1) 6

2) 2

3) 3

4) 9



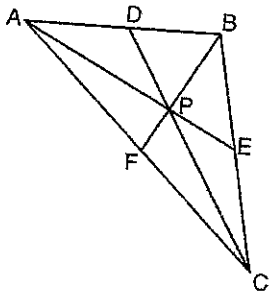
3) In ΔABC shown below, P is the centroid and $BF = 18$. What is the length of $\overline{BP}$?

1) 6

2) 9

3) 3

4) 12



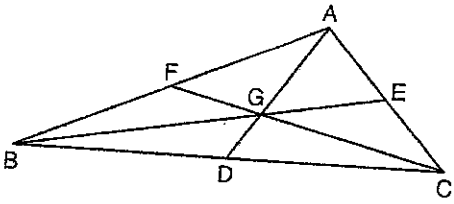
4) In the diagram below of ΔABC, medians $\overline{AD}$, $\overline{BE}$, and $\overline{CF}$ intersect at G. If $CF = 24$, what is the length of $\overline{FG}$?

1) 8

2) 10

3) 12

4) 16



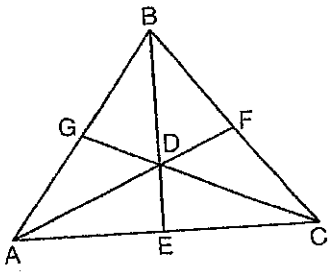
As shown below, the medians of ΔABC inter: ct at D. If the length of $\overline{BE}$ is 12, what is the length of $\overline{BD}$?

1) 8

2) 9

3) 3

4) 4



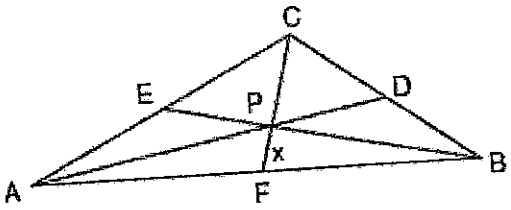
6) In the diagram of ΔABC below, Jose foun centroid P by constructing the three medians. He measured $\overline{CF}$ and found it to be 6 inches. If $PF = x$, wh n equation can be used to find x?

1) $x + x = 6$

2) $2x + x = 6$

3) $3x + 2x = 6$

4) $x + \frac{2}{3} \cdot x = 6$



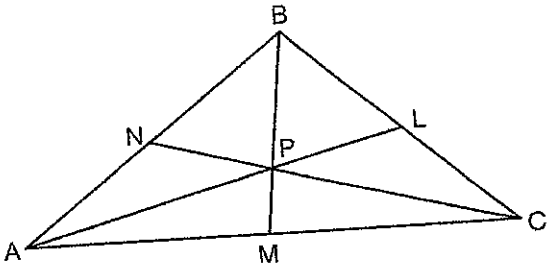
7) In the diagram below, point P is the cen oid of ΔABC. If $PM = 2x + 5$ and $BP = 7x + 4$, what is the length of $\overline{PM}$?

1) 9

2) 2

3) 18

4) 27



8) The three medians of a triangle inter: ct at a point. Which measurements could represent the segments of one of the medians?

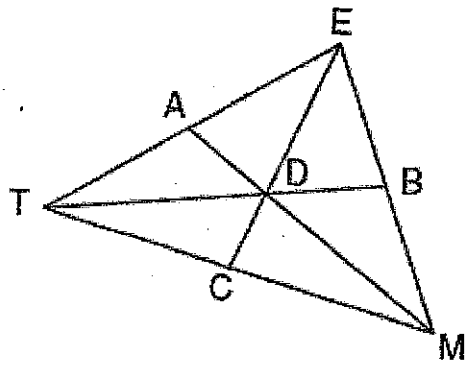
1) 2 and 3

2) 3 and 4.5

3) 3 and 6

4) 3 and 9

9) In the diagram below of ΔTEM, medians $\overline{TB}$, $\overline{EC}$, and $\overline{MA}$ intersect at D, and $TB = 9$. Find the length of $\overline{TD}$.



10) In the diagram below, $\overline{QM}$ is a median of triangle PQR and point C is the centroid of triangle PQR. If $QC = 5x$ and $CM = x + 12$, determine and state the length of $\overline{QM}$