Name _____ Date _____

MEDIAN = VERTEX → MIDPT
CENTROID = WHERE MEDIANS MEET

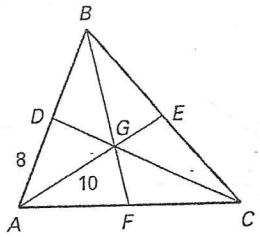
LESSON 5.4

Practice

For use with pages 318–327

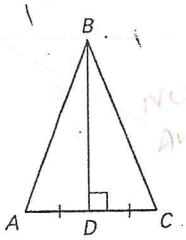
G is the centroid of $\triangle ABC$, $AD = 8$, $AG = 10$, and $CD = 18$. Find the length of the segment.

1. $\overline{BD}$
2. $\overline{AB}$
3. $\overline{EG}$
4. $\overline{AE}$
5. $\overline{CG}$
6. $\overline{DG}$

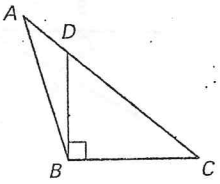


Is $\overline{BD}$ a *perpendicular bisector* of $\triangle ABC$? Is $\overline{BD}$ a *median*? an *altitude*?

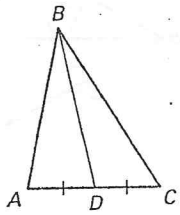
10.



11.



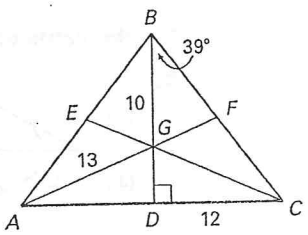
12.



Find the measurements.

13. Given that $AB = BC$, find AD and $m\angle ABC$.

14. Given that G is the centroid of $\triangle ABC$, find FG and BD.



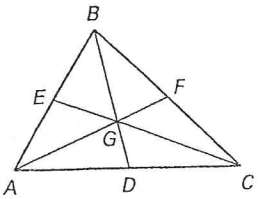
Copy and complete the statement for $\triangle HJK$ with medians $\overline{HN}$, $\overline{JL}$, and $\overline{KM}$, and centroid P.

15. $PN = \_?\_ HN$
16. $PL = \_?\_ JP$
17. $KP = \_?\_ KM$

Point G is the centroid of $\triangle ABC$. Use the given information to find the value of x.

18. $CG = 3x + 7$ and $CE = 6x$

19. $FG = x + 8$ and $AF = 9x - 6$



20. $BG = 5x - 1$ and $DG = 4x - 5$