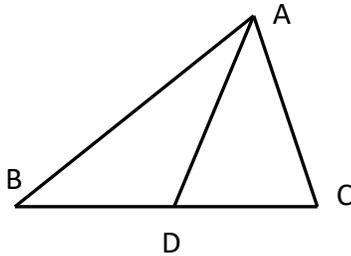
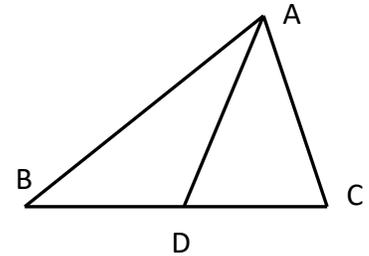


In each figure, \overline{AD} is a median. Find x .

$AC = 18$
 $BD = 6x - 2$
 $CD = 2x + 6$

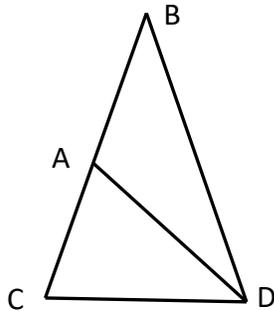


$AB = 26$
 $BD = 3x - 2$
 $BC = 10x - 12$



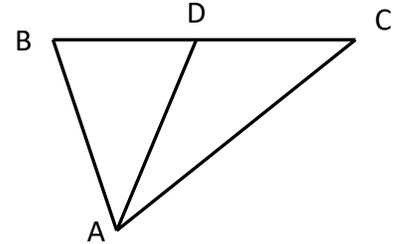
$\triangle BCD$ is isosceles, with $\angle B$ as the vertex angle.

$AC = 5x + 4$
 $BD = 18x - 2$
 $CD = 10x$



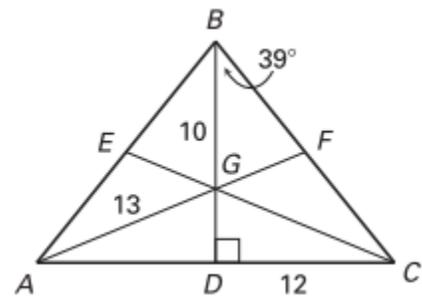
$\triangle ABD$ is isosceles, with $\angle A$ as the vertex angle.

$AB = 16$
 $BD = 5$
 $BC = x$



G is the centroid of $\triangle ABC$

1. Name a median
2. Name an angle bisector
3. Name a perpendicular bisector
4. $AD = 2x - 4$. Find x .
5. Find EF
6. Find $m\angle BAD$



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

1. \overline{BD}

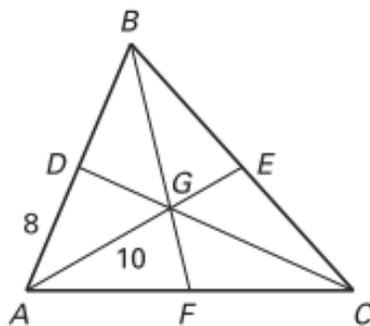
2. \overline{AB}

3. \overline{EG}

4. \overline{AE}

5. \overline{CG}

6. \overline{DG}



Challenge Questions

BD, AF, and EC are medians with G as the centroid of the triangle. For each question, find x.

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

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

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

