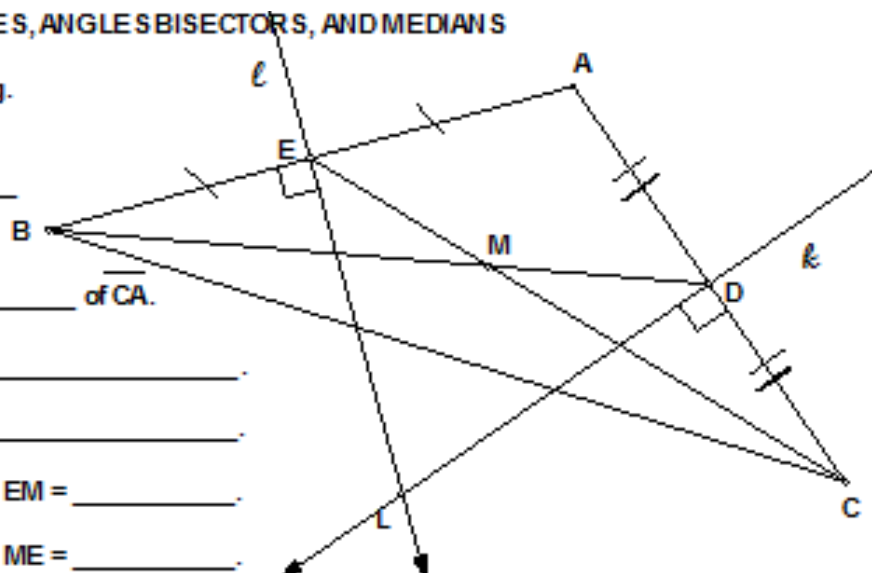## ALTITUDES, ANGLES BISECTORS, AND MEDIANS
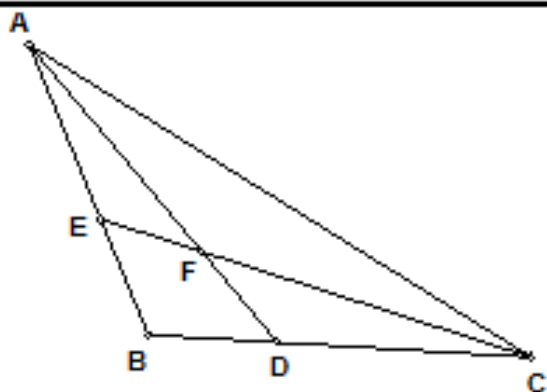
Find a value for x in each of the following.
E and D are midpoints.

1) $\overline{CE}$ and $\overline{BD}$ are _____
   of $\triangle ABC$.

2) k is a _____ of $\overline{CA}$.

3) M is called the _____.

4) L is called the _____.

5) If CE = 9, then CM = _____ and EM = _____.

6) If CM = 10, then CE = _____ and ME = _____.

7) If BD = 22, then BM = _____ and MD = _____.

8) If BL = 25, then CL = _____.

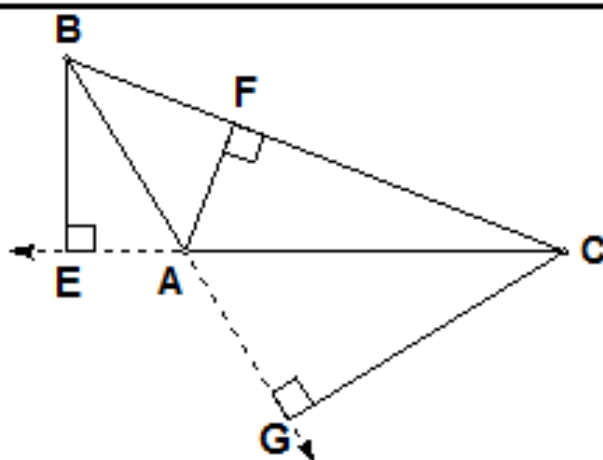$\overrightarrow{AD}$ bisects $\angle BAC$ and $\overrightarrow{CE}$ bisects $\angle ACB$

9) $\overrightarrow{AD}$ and $\overrightarrow{CE}$ are called _____.

10) Sketch a segment to show the distance from F to $\overline{AB}$.
    Label the point of intersection Z.

11) Sketch a segment to show the distance from F to $\overline{BC}$.
    Label the point of intersection Y.

12) What is true about $\overline{FZ}$ and $\overline{FY}$?

---

13) $\overline{BE}$, $\overline{FA}$, and $\overline{CG}$ are called what of $\triangle ABC$?

14) Sketch the lines that contain $\overline{BE}$, $\overline{FA}$, and $\overline{CG}$?
    Label the point where they intersect Q.

15) Q is called the _____.

16) Sketch an acute triangle. Mark the point on the
    triangle at which the triamgle is in perfect balance.
    Explain how you know this is the point at which the
    triangle, if cut out of cardboard, will balance perfectly.

17) What point should you find in order to draw a circle through all 3 vertices of a triangle? Which lines, or
    segments should be drawn to find this point? Why? Make a sketch.