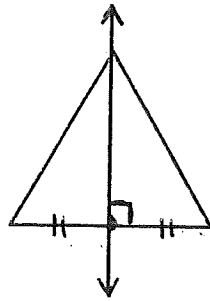
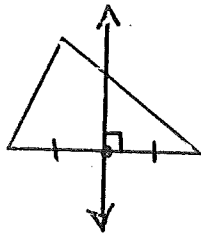
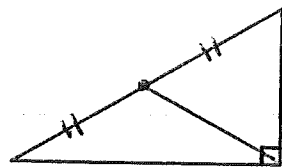
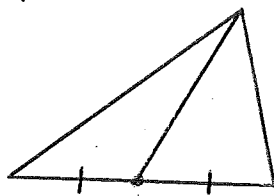


5-1 Bisectors, Medians & Altitudes

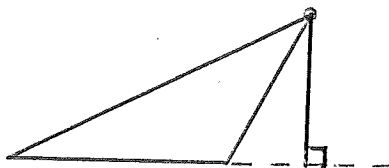
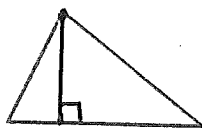
Perpendicular bisector = a line, segment, or ray that passes through the midpoint of the side of a \triangle and is perpendicular to that side.

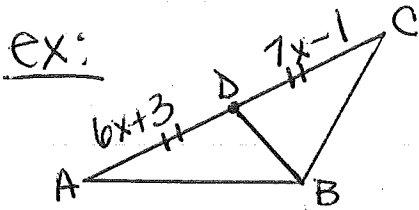


Median = a segment whose endpoints are a vertex of a triangle and the midpoint of the opposite side.



Altitude = a segment from a vertex to the opposite side and it is perpendicular to the line containing that side.





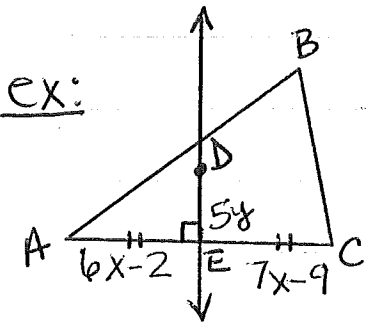
\overline{BD} is the median.

$$\overline{AD} \cong \overline{DC}$$

$$\begin{array}{r} \cancel{6x} + 3 = 7x - 1 \\ -6x \quad \quad -6x \end{array}$$

$$\begin{array}{r} 3 = 7x - 1 \\ +1 \quad \quad +1 \end{array}$$

$$\boxed{4 = x}$$



\overline{DE} is a perpendicular bisector of \overline{AC} .

Find x and y .

$$\begin{array}{r} \cancel{6x} - 2 = 7x - 9 \\ -6x \quad \quad -6x \\ +9 \quad \quad +9 \end{array}$$

$$\boxed{7 = x}$$

$$\frac{5y}{5} = \frac{90}{5}$$

$$\boxed{y = 18}$$