

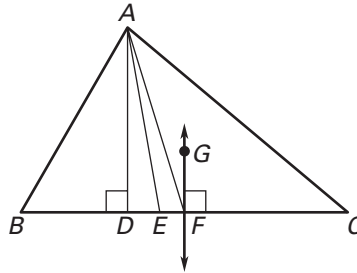
Practice B

For use with pages 279–285

Use the diagram shown and the given information to match the type of special segment with the correct segment.

$\angle BAE \cong \angle EAC$ and $\overline{BF} \cong \overline{FC}$

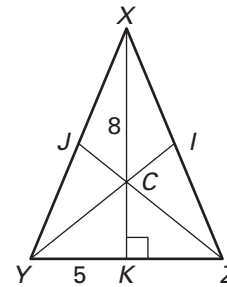
- | | |
|---------------------------|--------------------|
| 1. median | A. \overline{AD} |
| 2. altitude | B. \overline{AE} |
| 3. perpendicular bisector | C. \overline{AF} |
| 4. angle bisector | D. \overline{GF} |



Use the figure shown and the given information.

C is the centroid of $\triangle XYZ$, $YK = 5$, $XC = 8$, $YI = 9.6$ and $\overline{XK} \perp \overline{YZ}$.

- Find the length of \overline{CK} .
- Find the length of \overline{XK} .
- Find the length of \overline{YC} .
- Find the length of \overline{KZ} .
- Find the length of \overline{JZ} .
- Find the perimeter of $\triangle XYZ$.

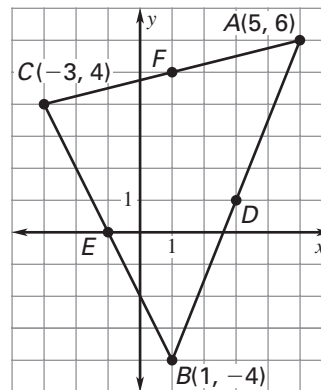


Complete the following sentences with *always*, *sometimes*, or *never*.

- The median of a triangle is ? the perpendicular bisector.
- The altitude of a triangle is ? the perpendicular bisector.
- The medians of a triangle ? intersect outside the triangle.
- The altitudes of a triangle ? intersect inside the triangle.

Use the graph shown.

- Find the coordinates of D, the midpoint of \overline{AB} .
- Find the length of the median \overline{CD} .
- Find the coordinates of the centroid. Label this point as G.
- Find the coordinates of E, the midpoint of \overline{CB} . Show that the quotient $\frac{AG}{AE} = \frac{2}{3}$.



Complete the constructions described.

- Draw a large acute, scalene triangle $\triangle ABC$. Construct the orthocenter.
- Draw a large right, scalene triangle $\triangle ABC$. Construct the centroid.