2.4 Do Now: Triangle Area

1. Complete the construction of a perpendicular bisector and fill in the blanks in the steps.

   (a) Given the line segment _____.

   (b) Construct circle A with radius AB.

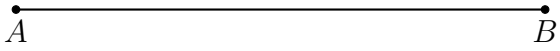
   (c) Construct circle _____ with radius _____.

   (d) Label the intersections of the two circles P and Q.

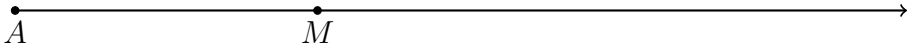
   (e) Draw line _____.

   (f) Label the intersection of $\overline{AB}$ and $\overleftrightarrow{PQ}$ as point M.

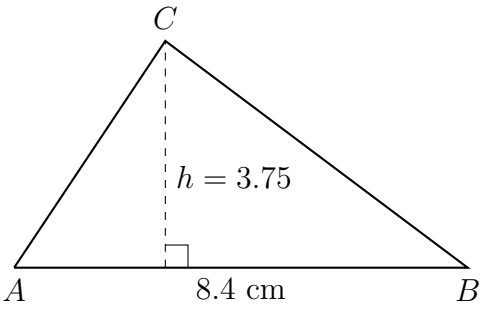
   (g) M is the midpoint of $\overline{AB}$ and $\overline{AB} \perp \overleftrightarrow{PQ}$



2. Given the ray $\overrightarrow{AM}$. Mark the point B on $\overrightarrow{AM}$ such that M is the midpoint of $\overline{AB}$, that is, $\overline{AM} \cong \overline{BM}$.



3. Find the area of $\triangle ABC$. The altitude h of the triangle is 3.75 centimeters and the base $AB = 8.4$ cm.



4. Given $\overline{PQR}$, with $PQ = 2x - 5$, $QR = x + 3$, and $PR = 19$. Find x.
Complete all the steps for full credit.

5. Given that Q bisects $\overline{PR}$. $PQ = 2x - 5$, $QR = x + 3$. Find x.
Complete all the steps for full credit.