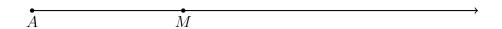
BECA / Dr. Huson / Geometry 02-Midpoint+distance Name: pset ID:  $20\,$ 

## 2-4DN-Triangle-area

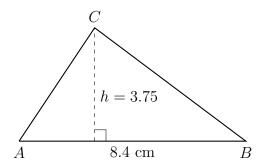
- 1. Complete the construction of a perpendicular bisector and fill in the blanks in the steps.
  - (a) Given the line segment \_\_\_\_\_.
  - (b) Construct circle A with radius AB.
  - (c) Construct circle \_\_\_\_\_ with radius \_\_\_\_\_.
  - (d) Label the intersections of the two circles P and Q.
  - (e) Draw line \_\_\_\_\_.
  - (f) Label the intersection of  $\overline{AB}$  and  $\overleftarrow{PQ}$  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.