

**7.8b Homework: Constructions**

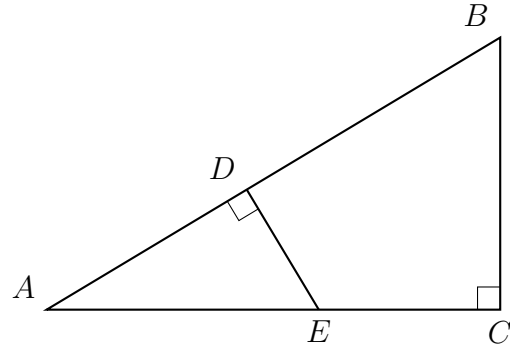
1. In  $\triangle ABC$  shown below,  $\angle ACB$  is a right angle,  $E$  is a point on  $\overline{AC}$ , and  $\overline{ED}$  is drawn perpendicular to hypotenuse  $\overline{AB}$ . Given  $\triangle ABC \sim \triangle AED$ .

(a) Justify  $\angle BAC \cong \angle EAD$ .

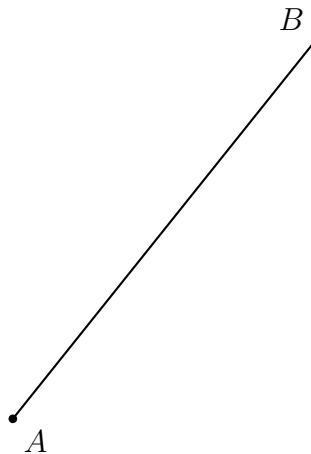
(b)  $\angle B \rightarrow$  \_\_\_\_\_

(c)  $\overline{AC} \rightarrow$  \_\_\_\_\_

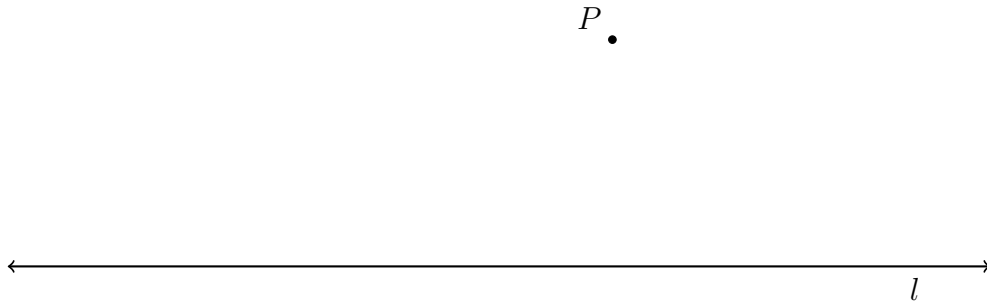
(d)  $DE = k \times$  \_\_\_\_\_



2. Complete the construction of a perpendicular bisector of  $\overline{AB}$ . Label the midpoint  $M$ . Show all construction marks, but make no extra lines.



3. Complete the construction of a line perpendicular to line  $l$  through the point  $P$ . Show all construction marks, but make no extra lines.



4. Accurately draw a square that is 5 centimeters on each side.