Additional Practice

1. The figure below is a kite.
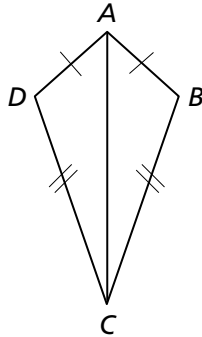
    a. Are triangles *ABC* and *ADC* congruent? Explain.

    b. Does $\overline{AC}$ bisect angle *DAB*? Explain.

    c. Does $\overline{AC}$ bisect angle *DCB*?
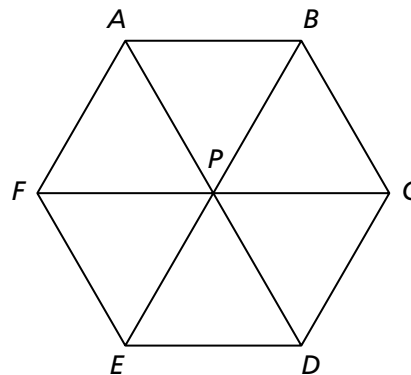
2. Triangle *ABC* below is isosceles.
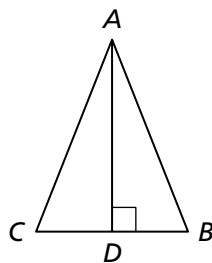
    a. Are triangles *ADB* and *ADC* congruent? Explain.

    b. Does $\overline{AD}$ bisect angle *CAB*? Explain.

Additional Practice *(continued)*

3. Figure *ABCDEF* at the right is a regular hexagon with 60° rotation symmetry about point *P*.

   a. What line segments are congruent to $\overline{AP}$? Explain.

   b. What angles are congruent to angle *PAB*? Explain.

4. Information about triangle *ABC* is given below. Determine whether you can draw a congruent copy of triangle *ABC* given the set of measurements. Explain your reasoning.

   a. $\overline{AB}$ = 5 cm, $\overline{BC}$ = 7 cm, ∠*B* = 40º

   b. $\overline{AB}$ = 7cm, $\overline{AC}$ = 5 cm, ∠*B* = 40º

   c. $\overline{AB}$ = 5 cm, ∠*A* = 50º, ∠*B* = 40º

   d. $\overline{AB}$ = 5 cm, ∠*B* = 40º, ∠*C* = 90º

   e. $\overline{AB}$ = 5 cm, $\overline{BC}$ = 7 cm, $\overline{CA}$ = 6 cm

   f. ∠*A* = 50º, ∠*B* = 40º, ∠*C* = 90º