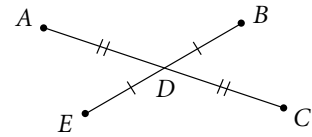Name _____ Class _____ Date _____

1-5 • Guided Problem Solving

GPS **Student Page 34, Exercise 34**

Algebra Use the diagram at the right.

If $AD = 12$ and $AC = 4y - 36$, find the value of y. Then find AC and DC.

Read and Understand

1. The segments $\overline{AD}$ and $\overline{DC}$ are marked alike. What does that indicate?

   _____

2. Based on your answer to Step 1, how are the lengths of $\overline{AD}$ and $\overline{DC}$ related? _____

3. What postulate can we use to solve for y? _____

Plan and Solve

4. Based on your answer to Step 2, how are AC and AD related? _____

5. What is AC? _____

6. Use your results from Steps 4 and 5 to solve for y. _____

7. Based on your answer to Step 1, what is DC? _____

Look Back and Check

8. Write a sentence describing how the Segment Addition Postulate has been used.

   _____

   _____

Solve Another Problem

9. Use the diagram at the top of the page.
   If $EB = 5x - 3$ and $DB = x + 6$, find ED, DB, and EB. _____