▶ ACTIVITY 1.5

Developing Concepts

Folding Bisectors

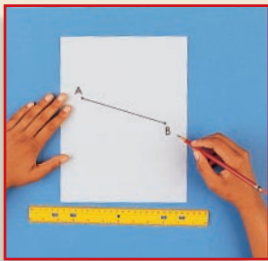**GROUP ACTIVITY**
Work with a partner.

MATERIALS
• rulers   • paper
• protractor   • pencils

▶ **QUESTION** How can you divide a segment or an angle into two equal parts?

You can fold a piece of paper so that one half of a segment or angle lies exactly on the other half.
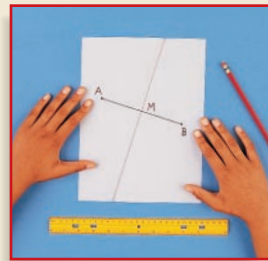
▶ EXPLORING THE CONCEPT: SEGMENT BISECTOR

1 On a piece of paper, draw $\overline{AB}$.

2 Fold the paper so that B is on top of A.

3 Label the point where the fold intersects $\overline{AB}$ as point M.
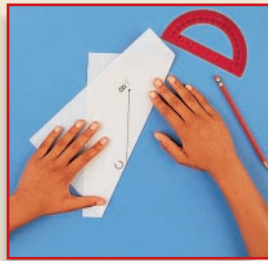
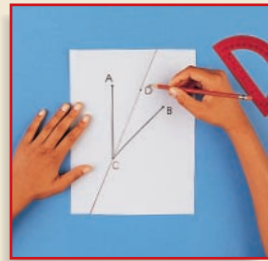**4** Use a ruler to measure $\overline{AM}$ and $\overline{MB}$.

▶ EXPLORING THE CONCEPT: ANGLE BISECTOR

5 On a piece of paper, draw $\angle ACB$.

6 Fold the paper so $\overrightarrow{CB}$ is on top of $\overrightarrow{CA}$.

7 Draw any point on the fold and label the point D.

8 Use a protractor to measure $\angle ACD$ and $\angle BCD$.

▶ DRAWING CONCLUSIONS

1. What do you notice about the segments you measured in Step 4?

2. What do you notice about the angles you measured in Step 8?

EXTENSION

CRITICAL THINKING Is it possible to fold congruent angles from a straight angle if you are given the vertex of the angle? Explain.