

LESSON

Technology Lab Recording Sheet p. 12

1-2 Explore Properties Associated with Points

Try This

1. Repeat the activity with a new segment. Drag each of the points in your figure (the endpoints, the point on the segment, and the midpoint). Write down any relationships you observe about the measurements.

- Construct a segment and label its endpoints A and C .
- Create point B on \overline{AC} .
- What is \overline{AB} ? _____
- What is \overline{BC} ? _____
- What is the sum of AB and BC ? _____
- What is the length of \overline{AC} ? _____
- What do you notice about the length of \overline{AC} compared with the measurements of AB and BC ? _____
- Drag point B along \overline{AC} . Drag one of the endpoints of \overline{AC} . What relationship do you think are true about the three measurements?

Draw a sample of your segment.

- Construct the midpoint of \overline{AC} and label it M .
- What is \overline{AM} ? _____
- What is \overline{MC} ? _____
- What relationships do you think are true about the lengths of \overline{AC} , \overline{AM} , and \overline{MC} ? Use the Calculate tool to confirm your findings.

- How many midpoints of \overline{AC} exist? _____

2. Create a point D not on \overline{AC} . Measure \overline{AD} , \overline{DC} , and \overline{AC} .

$AD =$ _____; $DC =$ _____; $AC =$ _____

Does $AD + DC = AC$? _____

What do you think has to be true about D for the relationship to always be true? _____

Draw a sample of your segment.