

LESSON **8-2** **Technology Lab Recording Sheet** p. 524
Explore Trigonometric Ratios

Try This

1. Drag D along \overleftrightarrow{AC} . What happens to the measure of $\angle A$ as D moves?

What postulate or theorem guarantees that the different triangles formed are similar to each other?

2. As you move D , what happens to the values of the three ratios you calculated? Use the properties of similar triangles to explain this result.

3. Move C . What happens to the measure of $\angle A$?

With a new value for $m\angle A$, note the values of the three ratios. What happens to the ratios if you drag D ?

4. Move C until $\frac{DE}{AD} = \frac{AE}{AD}$. What is the value of $\frac{DE}{AE}$?

What is the measure of $\angle A$? Use the properties of special right triangles to justify this result.
