

# RIGHT TRIANGLES AND TRIGONOMETRY

► *How do builders find the dimensions of a skywalk support beam?*





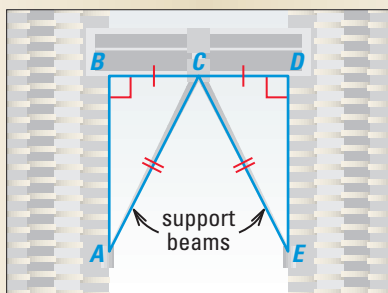
## CHAPTER

# 9

### APPLICATION: Support Beam

*When constructing a skywalk* for a skyscraper, builders often use mathematics to measure some lengths indirectly.

One method for indirect measurement involves using relationships in a right triangle.



### Think & Discuss

Use the diagram of a skywalk connecting two buildings for Exercises 1 and 2.

1. Given the information in the diagram, how do you know that the skyscrapers are parallel to each other?
2. How do you know that the two right triangles created by the skywalk, beams, and buildings are congruent?

### Learn More About It

You will see how the Pythagorean Theorem is used to find the length of a skywalk support beam in Example 4 on p. 537.



**APPLICATION LINK** Visit [www.mcdougallittell.com](http://www.mcdougallittell.com) for more information about skyscrapers.

