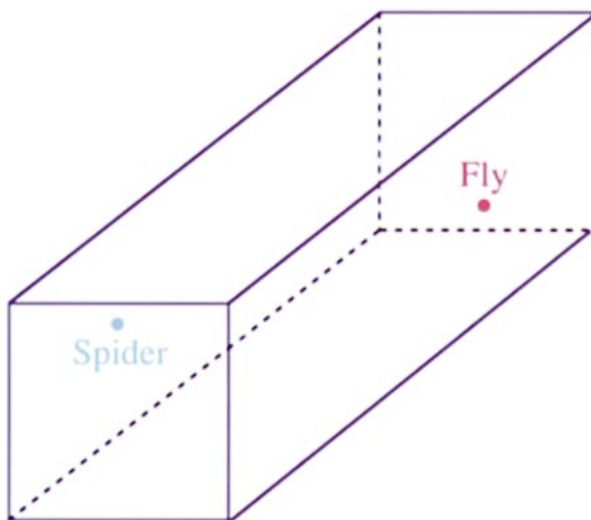


## The Spider and the Fly

### Problem-of-the-Week

#### The Problem

A hungry spider and an inattentive fly are in a room 30 feet long, 12 feet wide, and 12 feet high. The spider is on one of the smaller walls, 6 feet from each side and 1 foot from the ceiling. The fly is on the opposite wall, 6 feet from each side and 11 feet from the ceiling. Assume that the fly does not move and find the shortest path that the spider can take to the fly.



#### Strategies and Hints

1. Think about the shortest distance between any two points. Why can't the spider take that route?
2. Explain why the Pythagorean Theorem is likely to be helpful in problems of this type.
3. Draw a two-dimensional model of the room. Then add a right triangle to the drawing to help you find the distance.
4. How would it change the problem if there were a large window on the right wall that the spider had to crawl around?