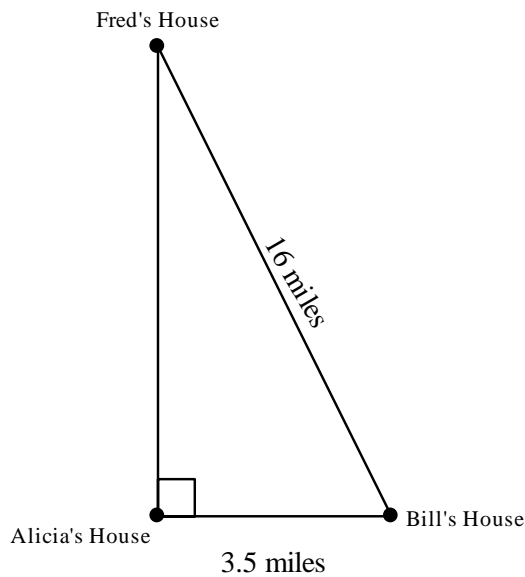


PROBLEM-OF-THE-DAY: ALGEBRA 1**WEEK:** January 28 to February 1**DAY:** Monday

RISD Objective: Provided the length of a leg of a right triangle and a hypotenuse (including word problems), students will use the Pythagorean Theorem to find the length of the other leg, applying it as necessary.

PROBLEM #91

How far would Fred have to drive if he went to Bill's house by way of Alicia's house?

MODEL SOLUTION #91

Show work and explain:

We will use the Pythagorean Theorem to find the missing side.

Pythagorean Theorem: $\text{leg}^2 + \text{leg}^2 = \text{leg}^2$

Let X = distance between Fred and Alicia's house.

$$X^2 + 3.5^2 = 16^2$$

$$X^2 + 12.25 = 256$$

$$X^2 = 243.75$$

$$X = 15.6$$

To find how far Fred has to drive, add the distance together:

$$15.6 + 3.5 =$$

$$19.1$$

Therefore, Fred will drive about 19.1 miles to get to Bill's house.