



NAME _____

Module 18 Solving Radical Equations
Lesson 3 Solving Problems Using Radical Equations

Set 1

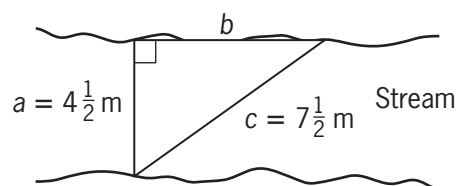
1. The time in seconds, T , it takes for an object to fall a given distance in feet, d , can be found using the formula $T = \sqrt{\frac{d}{16}}$. An object was dropped from a bridge and hit the water 3.8 seconds later. Find how far the object fell to the nearest foot.

231.04 ft or approximately 231 ft

2. The time elapsed during one complete swing of a pendulum can be found using the formula $T = 6.28\sqrt{\frac{l}{32}}$. In this formula, T is the time in seconds, and l is the length in feet of the pendulum. What is length of a pendulum that makes one swing in 2.5 seconds?

about 5.12 ft

3. A fisherman traveled due north $4\frac{1}{2}$ meters from his fishing spot to the opposite bank of a stream. He then headed due east and walked upstream, parallel to the stream, until the distance from his original spot was $7\frac{1}{2}$ meters. How far did the fisherman walk upstream? Use the formula $c = \sqrt{a^2 + b^2}$, where c is the length of the hypotenuse and a and b are the lengths of the legs.



6 meters

