

Tree House

Indirect Measurement

1. Jack is purchasing new home owners insurance. The agent asks if he'd like to take out a rider for his policy for damage caused by fallen trees. Since there is a rather tall tree 35 feet from his house, he needs to decide if the extra coverage is needed. The tree is too tall for Jack to climb, so he decides to measure the tree's shadow at the same time of day his friend Jill measures her shadow. Jill is 5.45 ft. tall and her shadow is 3.75 ft. long. The tree's shadow is 22.8 ft. long.
 - a. Sketch and label a picture to model the situation.
 - b. Determine the height of the tree. Show your work.
 - c. What advice would you give to Jack concerning the home owners policy? Explain.

Tree House – Scoring Guide

4 = Student provides an appropriate sketch with labels, correct solution with work and gives advice with explanation.

3 = Student provides appropriate sketch, correct solution and gives advice but fails to include one of the following: labels, work or explanation.

2 = Student provides a sketch, correct solution and advice, but fails to include two of the following: labels, work, or explanation.

1 = Student attempts to answer all parts with minor errors in calculations.

0 = Incorrect Response.

Blank = No attempt.