Situation #1:

The sun has made shadows of a boy and a tree, creating two similar triangles. The boy is 5 feet tall, and his shadow is 12 feet long. The tree’s shadow is 60 feet long.

Part A) Use proportions to determine how tall the tree is through indirect measurement. **Show all work. EXPLAIN** what you did and why.

Part B) Use the Pythagorean Theorem to determine the distance from the top of the tree to the end of its shadow. **Show all work.**
PSSA Open Ended Prep – Proportions

Situation #2:

A scale drawing of a house has a scale of 4 inch : 5 feet. On the scale drawing, the living room is 26 inches long and 19 inches wide.

Part A) Using proportions, determine the dimensions of the living room. Show all work. EXPLAIN what you did and why.

Part B) How many square feet of carpet will be needed to cover the living room? Show all work.

Part C) The hallway between the living room and the laundry room is supposed to be 12 feet long, but on the scale drawing it is just 7 inches long. What adjustment needs to be made to the drawing?