6.4 – Practice

1. A force of 4 lb is required to hold a spring compressed 2 in. beyond its natural length. How much work is done in stretching the spring from its natural length to 5 in. beyond its natural length?

2. A rope with density 0.2 kg/m is hanging over the edge of building 61 so the end touches the ground. At the end of the rope, you attach a 5-kg tray and put in a 10-kg Calculus book. Assuming that building 61 is 30 m high, find the work done in pulling the rope, tray, and book up to the top of the building.

Q: What five-letter word becomes shorter when you add two letters to it?