MCS21 Homework 36

1. A rectangular well is 6 feet long, 4 feet wide, and 8 feet deep. If water is running into the well at a rate of 3 cubic feet per second, how fast is the water rising?

2. A 15-foot ladder is resting against a wall. The bottom is initially 10 feet away from the wall and is being pushed towards the wall at a rate of ¼ foot/second. How fast is the top of the ladder moving up the wall 12 seconds after we start pushing?

3. How fast does the water level rise when a cylindrical tank of radius 40 cm is being filled at a rate of 100 cubic centimeters per second?