C12 - 4.1 - Circle/Sphere Related Rates HMK

The radius of the circle is growing at 4 m/s . What is the rate at which the area of the circle is changing when the radius is 10 m .	
The radius of the sphere is growing at 3 m/s. What is the rate at which the volume of the sphere is changing when the radius is 10 m.	ng

C12 - 4.1 - Square/Cube Related Rates HMK

The side of the square is growing at 2 cm/s. What is the rate at which the area of the square is changing when the side is 8 cm.
The side of the cube is growing at 3 m/s. What is the rate at which the volume of the cube is changing when the side is 2 m.

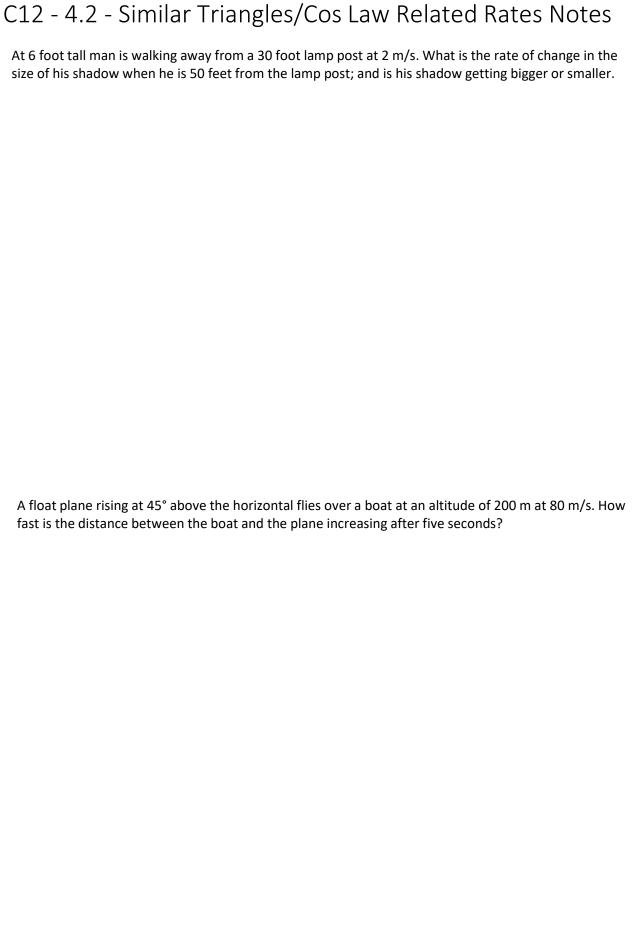
C12 - 4.1 - Square/Cube Related Rates HMK



C12 - 4.2 - Train Pythag Related Rates HMK



C12 - 4.2 - Ladder Pythag Related rates HMK
The top of a 20 ft ladder slides down a wall at a rate of 2 ft/s. At what rate is the base of the ladder sliding away from the wall when the latter is at a height of 6 ft on the wall.
What is the rate the angle at the bottom of the ladder changing?



C12 - 4.3 - Cone/Sim Tri/Cos Law Related Rates Notes

A cone with a radius of 4 cm and height of 8 cm is filling with water with the height of the water level is increasing at a rate of 0.1 cm/s. What is the rate the volume is increasing when the height of the water is level 2 cm.