

Name _____ Quiz 8, Calculus 1

A hot-air balloon is rising vertically at a rate of 10 ft/s. A motorcycle (traveling in a straight line on a horizontal road) is going to pass directly beneath it. When the motorcyclist is 50 feet from the location of the balloon, we know the following information:

- The balloon is 150 feet off the ground
- The distance between the balloon and motorcycle is decreasing at a rate of 25 ft/s.

How fast is the motorcycle moving?