

Math 141: Section 3.10 Related Rates Part II - Notes

Example 1 A ladder 10 ft long rests against a vertical wall. If the bottom of the ladder slides away from the wall at a rate of 1 ft/sec, how fast is the top of the ladder sliding down when the bottom is 6 ft from the wall?

Example 2 Car A is traveling west at 50 mph and Car B is traveling north at 60 mph. Both are headed for the intersection of two roads. At what rate are the cars approaching each other when Car A is 0.3 mi and Car B is 0.4 mi from the intersection?

Example 3 A searchlight is following a boat moving east at 4 ft/sec. If the searchlight is located due south of where the boat left dock, how fast is the searchlight rotating?