

Quiz 07

Math 140: Calculus I

Week 7

Instructions. No notes, books, or calculators. Show all work clearly. Answers without supporting work may receive little or no credit.

1. A square is expanding so that its side length is increasing at a rate of 3 cm/min. How fast is the area increasing when the side length is 5 cm?
2. A 20-ft ladder is leaning against a vertical wall. The bottom of the ladder is sliding away from the wall at a rate of 2 ft/s. How fast is the top of the ladder sliding down the wall when the bottom of the ladder is 12 ft from the wall?