

Quiz 7

MATH 1A Fall 2015

29 October 2015

Exercise 7.1. The hour hand of Big Ben is 9 feet long, and the minute hand is 14 feet long. Find the rate of change of the distance between the tip of the hour hand and the tip of the minute hand at 1pm. [Hint: It may be helpful to think of the hour hand and minute hand as two sides of a triangle, and use the law of cosines: if a triangle has sides a, b, c and the angle between a and b is θ , then $c^2 = a^2 + b^2 - 2ab \cos \theta$.]