MA 166: Quiz 11

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April 14, 2016

You have **15 minutes** to complete this quiz. You may work in groups, but you are not allowed to use any other resources; that means no phones, computers, or your notes.

Problem 1. For **two** of the following, write down the Maclaurin series of the function. Also give the interval of convergence.

(a) $\dfrac{1}{1-x}$

(b) e^{-3x}

(c) $\dfrac{1}{1+x^2}$

Problem 2. Find the length of the curve

$$x = \tfrac{1}{3}\cos^3 t, \quad y = \tfrac{1}{2}\sin^2 t, \quad \text{for } 0 \le t \le \pi/2.$$

Problem 3.   (a) What is your section number?

(b) Who should you turn in your exam material to?