MA 166: Quiz 10

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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. Find the radius of convergence and the interval of convergence of the power series

(a) $\displaystyle\sum_{n=1}^{\infty} \frac{1}{\sqrt{n}5^n} x^n.$

(b) $\displaystyle\sum_{n=1}^{\infty} n(x-2)^n.$

Problem 2. Use a power series to approximate the value of the indefinite integral

$$\int_0^{0.1} \frac{1}{1+x^3}\,dx$$

with an error $< 10^{-7}$. (Leave your answer as a sum of terms.)

Solutions