

Name: _____ MATH 152, Section: _____

Quiz 9

1. (6 points) Find the sum of the following series if they converge or show they diverge.

(a) $\sum_{n=0}^{\infty} \frac{(-1)^n 3^{2n}}{10^{n+1}}$

(b) $\sum_{n=4}^{\infty} \left(\frac{3}{n+2} - \frac{3}{n} \right)$

2. (4 points) Determine if the series below converges or diverges. Clearly state your reasoning and any tests used.

$$\sum_{n=1}^{\infty} n^2 e^{-n^3}$$