Quiz #8

MATH 126-101 — Calculus II
Thursday, Nov 5, 2026

Please print your name:

Problem 1. (10 points) Determine the value of the following series or state that they diverge.
(Show your work where necessary!)

(a) $\displaystyle\sum_{n=0}^{\infty} \left(\frac{3}{4}\right)^n =$

(b) $\displaystyle\sum_{n=2}^{\infty} 3^{-n} =$

(c) $\displaystyle\sum_{n=0}^{\infty} \frac{2^n - 3^n}{5^n} =$

(d) $\displaystyle\sum_{n=0}^{\infty} \frac{2^n + 4^n}{3^n} =$

(e) $\displaystyle\sum_{n=0}^{\infty} \frac{5n^2 + 2n}{3n^2 + 1} =$

(extra space for work as needed)

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