Math 2260 Quiz 16

Name _____

Points will be deducted for untidy or disorganized answers

1. Determine which of the follow series converge, and which diverge. Give reasons for your answer.

   (a) (1 point)
   $$\sum_{n=1}^{\infty} \frac{1}{5^n - 1}$$

   (b) (1 point)
   $$\sum_{n=1}^{\infty} \frac{1 + n^2 \ln n}{2n^3 - 1}$$

   (c) (1 point)
   $$\sum_{n=1}^{\infty} \frac{(1 + n^3)^{1/3}}{n}$$

   (d) (2 points)
   $$\sum_{n=1}^{\infty} \frac{(\ln n)^2}{n^3}$$

   (e) (Bonus points)
   $$\sum_{n=1}^{\infty} \frac{n^3}{3^n}$$