Math 2260 Quiz 16.5 (Practice)

Name _____

Points will be deducted for untidy or disorganized answers

1. (5 points) Determine which of the follow series converge, and which diverge. Give reasons for your answer.

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

   (b)
   $$\sum_{n=1}^{\infty} \sin(n^{-2}) \quad \text{and} \quad \sum_{n=1}^{\infty} n^2 \sin(n^{-2})$$

   (c)
   $$\sum_{n=1}^{\infty} \tan(n^{-1})$$

   (d)
   $$\sum_{n=1}^{\infty} \frac{1}{\sqrt{n \ln n}}$$

   (e)
   $$\sum_{n=1}^{\infty} \frac{n^4}{2^n}$$