

## Math 2260 Quiz 17.5

Name \_\_\_\_\_

*Points will be deducted for untidy or disorganized answers*

1. Determine which of the follow series are absolutely convergent, which are conditionally convergent, and which diverge. Give reasons for your answer.

(a)

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

(b)

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

(c)

$$\sum_{n=1}^{\infty} \frac{(-5)^{2n-1}}{(2n-1)!}$$

(d)

$$\sum_{n=1}^{\infty} \frac{n^2 (n+2)!}{n! 3^{2n}}$$