1 5 points

Determine the following series is converges or diverges. If it converges, then find the sum of series:

$$\frac{1}{3} - \frac{1}{2} + \frac{1}{3^2} - \frac{1}{2^2} + \frac{1}{3^3} - \frac{1}{2^3} + \cdots$$

2 5 points

Find the interval of convergence of the series

$$\sum_{n=2}^{\infty} \frac{x^n}{n \ln n}.$$