

Problems - 9.2

(4) Show whether the following series is absolutely convergent, conditionally convergent or divergent.

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

(10) Show whether the following series is absolutely convergent, conditionally convergent or divergent.

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

(15) Show whether the following series is absolutely convergent, conditionally convergent or divergent.

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