

To receive full credit, show all of your work.

1. Determine if each of the following series diverge, converge conditionally, or converge absolutely.

(a) [2 points] $\sum_{n=2}^{\infty} (-1)^n \frac{n+1}{n-1}$

(b) [3 points] $\sum_{n=1}^{\infty} (-1)^n \frac{1}{\sqrt{n}}$

(c) [3 points] $\sum_{n=1}^{\infty} \frac{n^2}{n!}$

(d) [2 points] $\sum_{n=1}^{\infty} (-1)^n \frac{n^2}{n!}$. [Hint: how does this relate to the previous problem?]

Total: /10