

#W 4-12

① We proved in class that if $\sum_{n=1}^{\infty} a_n$ is absolutely convergent, then any rearrangement $\sum_{k=1}^{\infty} a_{n_k}$ is convergent (with same sum). Show that $\sum_{k=1}^{\infty} a_{n_k}$ is even absolutely convergent.

② Does the series $\sum_{j=1}^{\infty} j/2^j$ converge?

③ Does the series $\sum_{i=1}^{\infty} \frac{2^i}{2^i - 3^i}$ converge? Does it converge absolutely?