

Name _____

Determine if the following series converge or diverge. You must fully justify your answer.

1. (4 points) $\sum_{k=3}^{\infty} \frac{5^k}{k!}$

2. (3 points) $\sum_{k=1}^{\infty} \frac{1}{(3 + \ln k)^k}$

3. (3 points) $\sum_{k=5}^{\infty} \frac{1}{2 + \sqrt{k}}$