

Each problem is worth 5 points. Provide good justification of your answers for full credit.

1. Find the first 3 partial sums of the series

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

2. Find the sum of the series

$$\sum_{n=0}^{\infty} \frac{1}{3^n}$$