

Each question is worth 5 points. Show good justification for full credit. Don't panic.

1. Find, correct to at least 4 decimal places, the first three partial sums of the series

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

2. Determine the exact sum of the geometric series

$$2 - 1 + \frac{1}{2} - \frac{1}{4} + \frac{1}{8} + \dots$$