Each problem is worth 5 points. Clear and complete justification is required for full credit.

1. Write the first 4 terms in the sequence  $\left\{\frac{1}{n^2}\right\}_{n=1}^{\infty}$ .

2. Write the first four partial sums of the series  $\sum_{n=1}^{\infty} \frac{1}{n^2}$ .