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

1. Find the 3rd partial sum of the series $\sum\limits_{n=1}^{\infty} \dfrac{1}{3^n}$ correct to the nearest hundredth.

$$\frac{1}{3} + \frac{1}{9} + \frac{1}{27} = \frac{13}{27} \quad or \quad .48$$

Great

2. Find the exact value of the sum of the series $3 + \dfrac{3}{2} + \dfrac{3}{4} + \dfrac{3}{8} + \dfrac{3}{16} + \dots$.

$$S = \frac{a}{1-r}$$

$$S = \frac{3}{1-\left(\frac{1}{2}\right)}$$

Good

$$S = 6$$