172 Quiz 12 Name: _____

Sum the following geometric series:

1. $\sum_{k=0}^{\infty} \left(\frac{3}{5}\right)^k$

2. $\sum_{k=1}^{\infty} \left(\frac{3}{5}\right)^k$

3. $\sum_{k=0}^{\infty} \left(\frac{4}{3}\right)^k$

4. Write the repeating decimal .353535... = $\overline{.35}$ as the ratio of two integers (i.e. as a fraction)