

27 The series $0.8 + 0.08 + 0.008 + 0.0008 + \cdots$ is an infinite geometric series with $a_1 = 0.8$ and $r = 0.1$.

$$S = \frac{a_1}{1 - r} = \frac{0.8}{1 - 0.1} = \frac{8}{9}$$