

2.59
c2

$$\text{I} \quad \frac{S_n}{S_{n-1}} = \frac{\frac{a_n}{1-q}}{\frac{a_{n-1}}{1-q}} = \frac{a_n}{a_{n-1}} = q$$

$$\text{II} \quad \frac{S_4}{S_1} = q^3 = \frac{S_4}{432} = \frac{1}{8} \rightarrow q = \frac{1}{2}$$

$$\sum_{i=1}^{\infty} S_i = S_1 + S_2 + \dots = \frac{S_1}{1-q} = \frac{432}{1-\frac{1}{2}} = 864$$