



$$\sum_{i=0}^{\log_2 n} 5 \times 4^i$$

$$5 \sum_{i=0}^{\log_2 n} 4^i = 5 \times \frac{1 \times (1 - 4^{\log_2 n})}{1 - 4}$$

\Downarrow

$$1 + 4 + 4^1 + \dots + 4^{\log_2 n} = 5 \times \frac{4^{\log_2 n} - 1}{3}$$

$$= 5 \times \frac{n^2 - 1}{3}$$