2. Evaluate:

$$\sum_{n=0}^{6} 3^n$$

Solution: The expression given in this example is the sum of 6 terms because we have n = 0 for the first term.

$$\sum_{n=0}^{6} 3^n = 3^0 + 3^1 + 3^2 + 3^3 + 3^4 + 3^5 + 3^6$$

$$= 1 + 3 + 9 + 27 + 81 + 243 + 729$$

= 1093