

Evaluate :

$$\sum_{x=1}^5 x^2 + 1$$

Solution: Replace x in the expression $(x^2 + 1)$ with 1, 2, 3, 4, and 5.

$$\sum_{x=1}^5 x^2 + 1 = (1^2 + 1) + (2^2 + 1) + (3^2 + 1) + (4^2 + 1) + (5^2 + 1)$$

$$= (1 + 1) + (4 + 1) + (9 + 1) + (16 + 1) + (25 + 1)$$

$$= 2 + 5 + 10 + 17 + 26 = 60$$