

5. Given the function $k(n) = n^2 + n$,
the average rate of change from $n=0$ to $n=4$ is:

6

-5

5

4

Solution

Using the average rate of change formula:

$$\text{The average rate of change} = \frac{k(4) - k(0)}{4 - 0}$$

$$= \frac{(1(4)^2 + 1(4)) - (1(0)^2 + 1(0))}{4}$$

$$= \frac{20 - 0}{4}$$

$$= 5$$