

1. Given the function $y(n) = n^2 + 4n$,
the average rate of change from $n=3$ to $n=4$ is:

12

-11

11

10

Solution

Using the average rate of change formula:

$$\text{The average rate of change} = \frac{y(4) - y(3)}{4 - 3}$$

$$= \frac{(1(4)^2 + 4(4)) - (1(3)^2 + 4(3))}{1}$$

$$= \frac{32 - 21}{1}$$

$$= 11$$