

9. Given the function $v(d) = d^2 + 4d$,
the average rate of change from $d = -1$ to $d = 6$ is:

10

-9

9

8

Solution

Using the average rate of change formula:

$$\text{The average rate of change} = \frac{v(6) - v(-1)}{6 - (-1)}$$

$$= \frac{(1(6)^2 + 4(6)) - (1(-1)^2 + 4(-1))}{7}$$

$$= \frac{60 - (-3)}{7}$$

$$= 9$$