

8. Given the function $g(t) = t^2 + 2t$,
the average rate of change from $t=3$ to $t=5$ is:

11

-10

10

9

Solution

Using the average rate of change formula:

$$\text{The average rate of change} = \frac{g(5) - g(3)}{5 - 3}$$

$$= \frac{(1(5)^2 + 2(5)) - (1(3)^2 + 2(3))}{2}$$

$$= \frac{35 - 15}{2}$$

$$= 10$$