

6. Given the function $z(b) = 2b^2 + 4b$,
the average rate of change from $b=0$ to $b=4$ is:

13

-12

12

11

Solution

Using the average rate of change formula:

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

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

$$= \frac{48 - 0}{4}$$

$$= 12$$