

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

15

-14

14

13

### Solution

Using the average rate of change formula:

$$\text{The average rate of change} = \frac{f(5) - f(0)}{5 - 0}$$

$$= \frac{(2(5)^2 + 4(5)) - (2(0)^2 + 4(0))}{5}$$

$$= \frac{70 - 0}{5}$$

$$= 14$$