

8. Given the function  $x(s) = s^2 + 4s$ ,  
the average rate of change from  $s = -2$  to  $s = 5$  is:

8

-7

7

6

### Solution

Using the average rate of change formula:

$$\text{The average rate of change} = \frac{x(5) - x(-2)}{5 - (-2)}$$

$$= \frac{(1(5)^2 + 4(5)) - (1(-2)^2 + 4(-2))}{7}$$

$$= \frac{45 - (-4)}{7}$$

$$= 7$$