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

18

-17

17

16

Solution

Using the average rate of change formula:

The average rate of change $= \dfrac{t(5) - t(2)}{5-2}$

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

$$= \dfrac{65 - 14}{3}$$

$$= 17$$