

Find the average rate of change of

$$f(x) = 4x - x^2 \dots$$

- From $x = 1$ to $x = 2$ $\rightarrow \frac{f(b) - f(a)}{b - a}$

$$f(a) = f(1) = 4 \cdot 1 - 1^2 = 3$$

$$f(b) = f(2) = 4 \cdot 2 - 2^2 = 4$$

$$= \frac{4 - 3}{2 - 1} = \frac{1}{1} = 1$$

- From $x = -1$ to $x = 6$