

Solutions

Each answer shows the steps, then the **result**.

2.1

- $\frac{f(a+h) - f(a)}{h}$

2.2

- it approaches the instantaneous rate of change (the derivative)

2.3

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

3.1 B

3.2 B

3.3

(a)

- $(3+h)^2$

(b)

- $\frac{(3+h)^2 - 9}{h} = 6 + h$

(c)

- 6