

Solutions

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

2.1

- $(fg)' = f'g + fg'$

2.2

- $(1)e^x + x e^x = e^x(1 + x)$

2.3

- when differentiating a product of two functions of x

3.1 B

3.2 B

3.3

(a)

- $f = x, g = \cos x$

(b)

- $(1) \cos x + x(-\sin x)$

(c)

- $y' = \cos x - x \sin x$