

Solutions

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

2.1

- $\frac{d}{dx}[f(g(x))] = f'(g(x)) \cdot g'(x)$

2.2

- $3(x^2 + 1)^2 \cdot 2x = 6x(x^2 + 1)^2$

2.3

- differentiating a composite (a function of a function)

3.1 B

3.2 B

3.3

(a)

- outer u^4 , inner $3x + 1$

(b)

- $4(3x + 1)^3 \cdot 3$

(c)

- $y' = 12(3x + 1)^3$