

Quiz 4 Solution–Version A

Differentiate these functions:

(a) $y = (1 + \sin^2 x)^5$

$$y' = 10(1 + \sin^2 x)^4 \sin x \cos x$$

(b) $y = e^{e^{3x}}$

$$y' = 3e^{e^{3x}} e^{3x}$$

(c) $y = (x^3 - 2)^6(x^2 + 3)^7$

$$y' = 18x^2(x^3 - 2)^5(x^2 + 3)^7 + 14x(x^3 - 2)^6(x^2 + 3)^6$$