

**Quiz 4 Solution–Version B**

Differentiate these functions:

(a)  $y = \sqrt{\sin x + \tan x}$

$$y' = \frac{1}{2}(\sin x + \tan x)^{-1/2}(\cos x + \sec^2 x)$$

(b)  $y = \cos(\cos 5x)$

$$y' = 5 \sin(\cos 5x) \sin 5x$$

(c)  $y = (x^2 - 3)^5(x^2 + 2)^8$

$$y' = 10x(x^2 - 3)^4(x^2 + 2)^8 + 16x(x^2 - 3)^5(x^2 + 2)^7$$