

STEP - Differentiation Exercises (1 page; 28/9/18)

(1) If $f(x) = x^2$, what is $f'(3x)$?

(2) Find $\frac{d}{dx}(a^x)$

(3) Show that $\frac{d}{dx}(x^x) = x^x(1 + \ln x)$

(4) Find $\frac{d}{dx}(x^{\sin x})$

(5) Find $\frac{d}{dx} \log_a x$