

Name _____ Student number _____ Quiz section: _____

1 : Find the derivatives of the following 3 functions: $f(x) = \sqrt{\tan^{-1} x^2}$, $\frac{x}{\cos x}$, $x^2 2^x$.

2 : Write down an equation for the tangent line to the curve $y = x^2 + 3x - 2$ at the point $(1, 2)$.

3 : Find the general form of the antiderivative of the function $f(x) = 3 \sin x - 2 \cos x + 4e^x - \frac{2}{x} + \frac{3}{1+x^2}$.