

Name _____ Student number _____ Quiz section: _____

1 : (3 pts) Find the derivative of the function $F(x) = \int_{x^4}^1 \sin \sqrt{x} dx$.

2 : (3 pts) Find an antiderivative of $f(x) = \frac{x}{x^2 + 1}$.

3 : (4 pts) A rocket is launched at time $t = 1$. Its velocity at time t is given by $v(t) = \frac{\sqrt{\ln t}}{t}$. Find the rocket's height at time $t = 5$.