

Name _____ Student number _____ Quiz section: _____

There are three problems in this quiz (the other one is on the back of this page), total of 20 points. Write legibly and show your work fully.

1 (7 points) Find the function f such that $f''(x) = x^2 + \sin x$ with $f(0) = 1$ and $f'(0) = 0$.

2 (6 points) Using the midpoint rule and $n = 3$ to estimate $\int_0^{\pi/2} \cos x dx$.

3 (7 points) Evaluate $\int_0^5 (3 - x)dx$ by interpreting it in terms of areas.