Name: _____

Quiz 3

Math 252

You have 20 minutes to complete this quiz and upload your work to Canvas. Write your answers on a separate sheet of paper and scan them with a scanning app. When you're finished, first check your work if there is time remaining, then turn it in. You may use a scientific calculator, but not a graphing one, and you may not consult other people or the internet. **Show all your work.**

1. (4 points) We want to evaluate the integral $\int_0^2 x \sin(x^2) \, dx$ using u-substitution. Rewrite the integral in terms of u and state what u is in terms of x, but don't integrate.

2. (8 points) Evaluate $\int_1^2 (6t + 6)(t^2 + 2t + 3)^2 \, dt$.

3. (8 points) Evaluate $\int \frac{\sin(y)}{\cos(y)} \, dy$.