$\frac{\mathbf{Math}\ \mathbf{132}\ \textbf{-}\ \mathbf{Homework}\ \mathbf{3}}{\mathbf{March}\ 3,\ 2021}$

Name		
	Score	

The following problems are from the suggested homework. Show all work to receive full credit. Supply explanations when necessary. This assignment is due on March 10.

1. (2 points) Integrate:
$$\int x^2 \sin(3x^3 + 2) dx$$

2. (2 points) Determine the exact value of
$$\int_0^{\pi/2} x^2 \sin x \, dx$$

3. (2 points) Integrate:
$$\int \tan^5(2x) \sec^2(2x) dx$$

4. (2 points) Integrate:
$$\int \sin^3 x \, dx$$

5. (2 points) Integrate:
$$\int \sqrt{x^2 + 9} \, dx$$