

Name: \_\_\_\_\_ Section: \_\_\_\_\_

Answer all questions and show your work. Unsupported answers may receive *no credit*. You may not use a calculator on this quiz. Allow 15 minutes for the quiz.

1. Find the following integrals:

(a) (5 points)  $\int 2x^3 \cos(x^2) dx$

[Hint: First use the substitution  $t = x^2$ .]

(b) (5 points)  $\int x^2 e^{3x} dx$