

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) (3 points) $\int x \sin(2x) dx$

(b) (4 points) $\int_0^2 x e^{x^2+1} dx$

(c) (3 points) $\int x^3 \ln(x) dx$.

HINT: Use integration by parts with $dv = x^3 dx$ and $u = \ln(x)$.