

You will have twenty minutes to take this quiz. Read the instructions carefully. There are more questions on the back of this page.

**1.** (4 points) *You do not need to show your work. Only the answer will be graded.*

1. (2 points) Is  $\int_u^{u^3} e^{v^3} dv$  a function? If so, of what variable?

2. (2 points) True or false?  $\int (\sin(x^2) + x^2 \cos(x^2)) dx = x \sin(x^2) + C$ .

**2.** (6 points) Show your work. Partial credit may be awarded.

1. (3 points) Compute  $\int \sin(3x) \cos(3x) dx$

2. (3 points) Compute  $\int x \sin(\pi x) dx$