

## QUIZ 1

- Show all your work and indicate your final answer clearly. You will be graded not merely on the final answer, but also on the work leading up to it.
1. (3 points) Find the antiderivative of the function  $f(x) = x \sin(x^2)$ .
  2. (3 points) Calculate  $\int_0^1 x^2 \sqrt{x+5} \, dx$ .
  3. (4 points) Find the area of the region bounded on the left by the line  $x = 1$ , on the right by  $x = 4$ , above by  $y = e^x$ , and below by  $y = x$ .