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. (3 points) Evaluate $\displaystyle \int xe^{2x}\,dx$

2. (3 points) Evaluate $\displaystyle \int x\cos(x^2)\,dx$

3. (4 points) Let f be a twice differentiable function with $f(3) = 7$, $f(5) = 9$, $f'(3) = 4$ and $f'(5) = 6$. Evaluate
$$\int_3^5 xf''(x)\,dx.$$