Full Name:_____ **Instructor & Section:**_____

Instructions: Complete this section and hand it in after 30 minutes. No calculators. Show all work. Each problem is worth 9 points.

1. Use integration by parts to express $\int (\ln x)^n \, dx$ in terms of $\int (\ln x)^{n-1} \, dx$.

2. Evaluate $\int \sin^3 x \cos^2 x \, dx$.

Questions continued on reverse

3. Evaluate $\int (x^2+4)^{-3/2}\,dx$.

4. Evaluate $\int \dfrac{2x^2-5x}{(x+2)(x-1)^2}\,dx$.