

**MAT 137 (Calculus II) Prof. Swift**  
**In-class worksheet: Review of Integration**

1. Evaluate  $\int \sqrt{x}(x^2 + 1)dx$

2. Evaluate  $\int_0^{\sqrt{\pi}} x \sin(x^2)dx$

3. Evaluate  $\int \frac{3+x}{1+x^2}dx$

4. Evaluate  $\int x\sqrt{1+x}dx$