

**MAT 136 (Calculus I) Prof. Swift**  
**In-class worksheet: The Indefinite Integral**

1. Evaluate  $\frac{d}{dx}[x^3 + 2x^2 + 3x + 4]$

2. Evaluate  $\int 3x^2 + 4x + 3 dx$

3. Evaluate  $\int x^5 + x^3 + x dx$

4. Evaluate  $\frac{d}{dx}[x \sin(x)]$

5. Evaluate  $\int \sin(x) + x \cos(x) dx$