

### Math 276 Discussion Worksheet 3

1. **a.**  $-\frac{e^{-x^2}}{2} + C$                       **b.**  $-\frac{1}{2}(x^2 + 1)e^{-x^2} + C$

2. **a.**  $x \arctan(x) - \frac{1}{2} \log(1 + x^2) + C$                       **b.**  $\sqrt{1 - x^2} + x \arcsin(x) + C$

3. **a.**  $x^{1/x} \frac{1 - \log x}{x^2}$                       **b.**  $x^{x^x + x - 1} (x \log^2(x) + x \log(x) + 1)$