Math 142 Midterm 2

Name: _____

1. Integrate $\displaystyle\int \sin^{\text{red}-1} x \cos^{\text{blue}-1} x \, dx$.

2. Integrate $\displaystyle\int_1^\infty \frac{\arctan x}{x^2}\,dx.$

3. Integrate $\displaystyle\int e^{-sx}\cos x \, dx$ where s is a constant.

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

5. Integrate $\displaystyle\int \frac{x}{\sqrt{16 - x^4}}\, dx.$