

Name:

1. (3pts) Evaluate the integral  $\int \frac{dx}{\cos x + \sin x + 1}$ .

2. (3pts) Evaluate the integral  $\int \frac{dx}{x^4 + x^2}$ .

3. (4pts) Estimate the number of intervals required to approximate the value of the integral  $\int_1^2 \frac{dx}{x}$  by Midpoint rule to within 0.0001.