

Name: ID: Serial No.:

1. Evaluate
$$\int \frac{dx}{(25-x^2)^{3/2}}$$

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

Determine whether the integral $\int_{-\infty}^0 x e^{-x^2} dx$ is convergent or divergent. If it is convergent, find its value