

This Homework is **DUE** Wednesday February 13<sup>th</sup> at the **beginning** of class. Feel free to use Maple to check your work, yet you **MUST SHOW YOUR WORK** to receive credit. Using the proper limits find the following integrals (determining if the integrals exist or not)

1.

$$\int_{-\infty}^0 \frac{1}{\sqrt{3-x}} dx$$

Answer: \_\_\_\_\_

2.

$$\int_{-2}^{\infty} \sin(x) dx$$

Answer: \_\_\_\_\_

3.

$$\int_{-1}^1 \frac{dx}{x^2}$$

Answer: \_\_\_\_\_

4.

$$\int_{-1}^1 \frac{dx}{x^3}$$

Answer: \_\_\_\_\_