

1. Evaluate:

$$\int_{-\infty}^2 \frac{2 dx}{x^2 + 4}$$

2. Evaluate:

$$\int_0^4 \frac{dx}{\sqrt{4-x}}$$

3. Does the following integral converge or diverge? (Use the Comparison Test.)

$$\int_4^{\infty} \frac{dx}{\sqrt{x} - 1}$$

Q: What is it that you will break even when you name it?