

Definition of the Integral

Use a calculator to compute the following integrals:

1. $\int_0^{2\pi} \sin x \, dx$

a. Explain why this answer is correct using the graph of $\sin x$.

2. $\int_0^{30} \frac{t^2+t}{t-5} \cdot e^{t-2} \, dt$

3. $\int_1^{e^2} \ln(x^3 + 1) \, dx$