

Homework 22

1. Write down the fundamental theorem of calculus. In your own words, write what this means and why it's such a big deal. After all, it is called a "Fundamental Theorem!"
2. Use the fundamental theorem of calculus to find the following integrals:

(a) $\int_0^{\frac{\pi}{2}} \cos x \, dx$

(b) $\int_{-1}^2 3x^2 \, dx$

(c) $\int_1^5 -\frac{1}{x^2} \, dx$

(d) $\int_1^5 e^x \, dx$