WRITE YOUR NAME:

MAC 2312 Quiz 2
Thursday January 18th

Evaluate the definite integral.

$$\int_1^4 x^2\,dx$$

We know $\int x^n dx = \frac{x^{n+1}}{n+1} + C$ if n is any constant EXCEPT -1

$$= \left[\frac{x^3}{3}\right]_1^4 = \frac{1}{3}\left[x^3\right]_1^4 = \frac{1}{3}\left(4^3 - 1^3\right)$$

$$= \frac{1}{3}(64-1) = \frac{1}{3}(63) = 21$$