

Review for Quiz 6.1-6.2

1. Be able to approximate the area under a curve using a given number of rectangles.

(P. 377 #1-8)

EX: Approximate the area under $f(x) = x^3$ on $[0, 1]$ using 4 rectangles or 50 rectangles

2. Be able to write the equation of the area between the curve and interval $[a, x]$.

(P. 377 #9-14)

EX: Find an equation for the area under the line $f(x) = 2x + 3$ on $[1, x]$.

3. Be able to express in your own words a basic definition of integration.
4. Know basic information about indefinite integrals.
5. Be able to integrate (P. 385 #13-31) Review all known derivatives & integrals from P. 380
6. Be able to find a particular equation when given a differential equation and an initial condition (P. 386 #41-44)

EX: Find the original function of $\frac{dy}{dx} = \frac{1}{x^2}$, $x > 0$ when $y(1) = 0$