Name:

# Math 2

Quiz 2

1. Find the most general antiderivative of $f(x) = x^7 + 3x^4 + \sin(x)$.

2. Find the most general antiderivative of $f(x) = \frac{3}{1+x^2}$.

3. Find the most general antiderivative of $f(x) = 13\cos(13x)$.

4. In this problem you will estimate the area under the graph of $f(x) = x^2$ from $x = 0$ to $x = 6$,

a. using three approximating rectangles and left endpoints

b. using six approximating rectangles and right endpoints

c. using $n$ approximating rectangles and right endpoints (i.e. your answer should be a formula in terms of $i$'s and $n$'s; you need not evaluate the sum)