Math 241: HW 7

Due on Tuesday, June 18

Summer '13

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Problem 1

Compute

$$\sum_{i=31}^{103} i = ?$$

(I forgot the specific problem I assigned in class, it was something like this)

Problem 2

Find the antiderivative, $F(x) + C$, for the following functions:

$$f(x) = (3x^2)^5$$

$$f(x) = \cos(x^2)x$$

Problem 3

Use sigma notation and limits to find the area under the curve for $f(x) = x^2$ on the interval $[0, 2]$. You MUST use the fact that

$$\sum_{i=1}^{n} i = \frac{n(n+1)(2n+1)}{6}.$$