

Math 266B**Guide for Test 2**

Here are some sample questions from old tests. Some topics that we covered are not represented by these questions, but are still fair game.

1. Compute

$$(a) \int_2^3 x \sin(5x) dx =$$

$$(b) \int_3^4 7xe^{x^2} dx =$$

$$(c) \int 7x^2 e^x dx =$$

$$(d) \int x^2 \sqrt{x-2} dx =$$

$$(e) \int_0^3 \frac{1}{\sqrt{x}} dx =$$

$$(f) \int_3^\infty \frac{1}{\sqrt{x}} dx =$$

$$(g) \int_3^\infty \frac{1}{x^2} dx =$$

$$(h) \int xe^{-3x} dx =$$

$$(i) \int \frac{5}{x^2 + x - 2} dx =$$

$$(j) \int \frac{x \ln(1+x^2)}{1+x^2} dx =$$

$$(k) \int_1^4 (x-2)^{-1/3} dx =$$

$$(l) \int x \ln(x) dx$$

$$(m) \int \frac{\ln(x)}{x} dx$$