

MATH 135: Quiz 13

December 9, 2014

Name: _____ Sec: _____

1. Use the Fundamental Theorem of Calculus to compute the following:

$$\int_1^3 \frac{2x^3 + 3x^2 + 1}{x^2} dx$$

$$\frac{d}{dx} \int_2^{x^2} (\cos(t))^{15} dt$$

2. Find the area under the curve $y = x(x^2 - 2)^3$ between $x = 1$ and $x = 2$.

3. Compute the following definite integral.

$$\int_0^{\sqrt[3]{\pi}} x^2 \sin(x^3) dx$$