NAME: MATH 151 Section: November 29, 2017

QUIZ 9

- Show all your work and indicate your final answer clearly. You will be graded not merely on the final answer, but also on the work leading up to it.

1. (3 points) Use the Fundamental Theorem of Calculus to find $g'(x)$ if $g(x) = \displaystyle\int_0^{x^2} e^{\sin(t)}\, dt$.

2. (3 points) Evaluate $\displaystyle\int_0^1 \frac{8}{x^2+1}\, dx$

3. (4 points) Calculate $\displaystyle\int \frac{3+\sqrt{x}+x}{x^2}\, dx$.