Math 172 - Quiz 10

Name _____

November 8, 2017

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (3 points) Integrate: $\displaystyle\int \csc^{10} 8x \, \cot^3 8x \, dx$

2. (2 points) Integrate: $\displaystyle\int \sin 3z \, \sin 10z \, dz$

3. (2 points) Integrate: $\displaystyle\int \frac{dx}{(4+x^2)^2}$

4. (3 points) Integrate: $\displaystyle\int_1^4 \frac{\sqrt{x^2+4x-5}}{x+2}\,dx$

   (Hint: First complete the square and do a u-substitution.)

5. (2 points extra credit) Integrate: $\displaystyle\int_{-8}^{-5} \frac{\sqrt{x^2+4x-5}}{x+2}\,dx$

   (Warning: Pay careful attention to how this differs from the problem above.)