Quiz #12, 11/30
Math 156 (Calculus I), Fall 2022

Problem 1 is worth 10 points (2.5 pts each part) for a total of 10 points. Remember to *show your work* on all problems!

1. Evaluate the following indefinite integrals by using the u-substitution technique:

   (a) $\int x \cdot \cos(x^2) \, dx$

   (b) $\int x^2 \cdot e^{x^3+2} \, dx$

   (c) $\int \sqrt{5x+3} \, dx$

   (d) $\int \frac{\sin(x)}{\cos(x)} \, dx$ [**Hint**: try $u = \cos(x)$]