

Math 132 - Quiz 4

March 24, 2021

Name _____

Score _____

Show all work to receive full credit. Supply explanations when necessary. This quiz is due March 31.

1. (3 points) Use a trigonometric substitution to evaluate $\int \frac{x^2}{\sqrt{1+x^2}} dx$.

Turn over.

2. (3 points) Use partial fractions to evaluate $\int \frac{3x + 4}{(x^2 + 4)(3 - x)} dx$.

3. (2 points) Use the trapezoid rule over 5 subintervals to approximate $\int_1^2 \sin(x^2) dx$.

4. (2 points) Evaluate the improper integral $\int_0^\infty \frac{e^x}{1 + e^{2x}} dx$.