

Math 10860, Honors Calculus 2

Quiz 7

Thursday March 26

1. Use the substitution $u = \sqrt{1 + \sqrt{x}}$ to find

$$\int \frac{dx}{\sqrt{1 + \sqrt{x}}}.$$

2. Using an appropriate substitution, reduce

$$\int \frac{x^2}{\sqrt{x^2 + 1}} dx$$

to an integral that only involves trigonometric functions.