
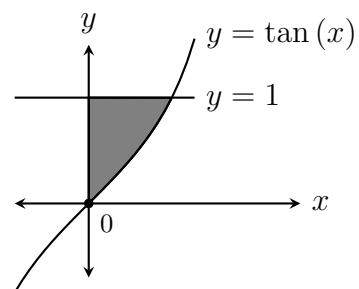

Name: _____

TEST 2 
March 27, 2025

MATH 201
R. Hammack

1. The region under $y = \tan(x)$ and over $\left[0, \frac{\pi}{4}\right]$ is rotated around the x -axis. Find the volume.

2. Find the area of the shaded region.



3. $\int \frac{\ln(x)}{x^4} dx =$

4. $\int \sec^4(x) dx =$

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

6. Use integration by parts to find $\int \tan^{-1}(x) dx$

7. $\int \frac{8}{x^2 + 4x - 12} dx =$

8. $\int_2^\infty \frac{\sin(\pi/x)}{x^2} dx =$

9. $\int_2^3 x(x-2)^9 dx =$

10. $\int \frac{x^2 + 2x + 4}{x + 1} dx =$