

Millersville University  
Department of Mathematics  
MATH 211, *Calculus II*

Please evaluate the following improper integrals.

1.  $\int_{-1}^1 \frac{1}{x^{2/3}} dx$

2.  $\int_{-\infty}^2 \frac{2}{x^2 + 4} dx$

3.  $\int_0^2 \frac{x + 1}{\sqrt{4 - x^2}} dx$

4.  $\int_{-1}^{\infty} \frac{1}{x^2 + 5x + 6} dx$

5.  $\int_0^1 \frac{4x}{\sqrt{1 - x^4}} dx$

6.  $\int_0^2 \frac{1}{\sqrt{|x - 1|}} dx$

7.  $\int_{-\infty}^{\infty} 2xe^{-x^2} dx$

8.  $\int_0^{\infty} \frac{16 \tan^{-1} x}{1 + x^2} dx$

9.  $\int_0^{\infty} 2e^{-x} \sin x dx$

10.  $\int_0^1 (-\ln x) dx$