

Millersville University  
Department of Mathematics  
MATH 161, *Calculus I*

Please evaluate the following indefinite integrals.

1.  $\int 4x^3 dx$

2.  $\int 2x^3 + 3x^2 dx$

3.  $\int x^{2/3} + 3x^{1/3} + 4x^2 dx$

4.  $\int \sin x - x dx$

5.  $\int 3x(x^3 + 1) dx$

6.  $\int \cot^2 x dx$

7.  $\int \sqrt{x} + \cos x dx$

8.  $\int \frac{x^{1/2} + x^3 - x^4}{x} dx$

9.  $\int (x^3 - x^5)^2 dx$

10.  $\int x^3(x + 1)(3x + 2) dx$

11.  $\int e^{-2x} dx$

12.  $\int 4 \sin(3x) dx$

13.  $\int \frac{3x^2}{x^3 + 2} dx$

14.  $\int \frac{e^x}{e^x + 1} dx$