

## INTEGRATION BINGO

Some problems may not require U-substitution others may require algebraic manipulation. THINK!!!

1.  $\int \frac{\ln x}{x} dx$

9.  $\int \frac{(\ln x)^7}{x} dx$

17.  $\int x \cos(x^2) dx$

2.  $\int \frac{2x}{5x^2 + 7} dx$

10.  $\int \frac{\sec(\ln x) \tan(\ln x)}{x} dx$

18.  $\int \sin^5 x \cos x dx$

3.  $\int \frac{e^{\frac{1}{x}}}{x^2} dx$

11.  $\int x \sqrt{3x - 6} dx$

19.  $\int (\sec^2 x \tan^4 x) dx$

4.  $\int x^2 \sec^2(x^3) dx$

12.  $\int \frac{4e^{3x}}{3 + 5e^{3x}} dx$

20.  $\int \frac{x^3}{(5 - x^4)^2} dx$

5.  $\int \sin^2 x dx$

13.  $\int x(x+1)^9 dx$

21.  $\int \frac{x-1}{x} dx$

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

14.  $\int \sin(2x-4) dx$

22.  $\int \frac{5-4x^3+2x^6}{x^6} dx$

7.  $\int \frac{4x^2}{(x^3-1)^3} dx$

15.  $\int \frac{x^3}{(x^4+1)^4} dx$

23.  $\int x \sqrt{x+2} dx$

8.  $\int \frac{e^x - e^{-x}}{e^x + e^{-x}} dx$

16.  $\int \sqrt{4x-1} dx$

24.  $\int \cot x dx$