

Anti-Derivative Practice
(can't have enough practice)

If you can find the definite/indefinite integrals of the following functions you will be doing great!!!

Indefinite:

- (1) $\int 2x^3 - 3x + 5dx$
- (2) $\int 3x^5 - 4x^7 + 6dx$
- (3) $\int (2x + 5)e^{x^2+5x} dx$
- (4) $\int \frac{x^2}{x^3+5} dx$
- (5) $\int \frac{1}{(x+2)^4} dx$
- (6) $\int e^{3x} dx$
- (7) $\int \left(3x^4 + \frac{3}{x} + \frac{4x^2}{(x^3-1)^2} + \frac{3x}{e^{x^2}} \right) dx$
- (8) $\int \frac{1}{x} dx$
- (9) $\int \frac{25}{x^2} dx$
- (10) $\int \left(\frac{3}{x^2} + \frac{2}{\sqrt{x}} + \sqrt{x+3} \right) dx$

Definite:

- (11) $\int_0^1 2x^3 - 3x + 5dx$
- (12) $\int_{-1}^1 (2x + 2)e^{x^2+2x+7} dx$
- (13) $\int_2^3 \frac{3}{x^2} dx$
- (14) $\int_1^4 \frac{5}{x} dx$
- (15) $\int_4^7 \left(x^3 + \frac{2x}{x^2+3} + \frac{1}{x} \right) dx$
- (16) $\int_{-5}^{10} (x^3 - 7x + 31) dx$
- (17) $\int_9^{15} \frac{7}{x} dx$
- (18) $\int_0^1 e^x dx$
- (19) $\int_4^6 xe^{x^2-5} dx$
- (20) $\int_0^1 \frac{x^2}{(x^3+3)^2} dx$