

II. EVALUATE EACH INDIFINITE INTEGRAL.

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

2. $\int 8x^2 \sin(2x) dx$

3. $\int \sin^5(x) \cos^2(x) dx$

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

5. $\int \frac{x^3}{16\sqrt{16-x^2}} dx$

6. $\int \frac{x^2}{\sqrt{x^2+25}} dx$

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

8. $\int \frac{x^2-x+2}{(x+1)(x-1)^2} dx$

9. $\int \frac{7x^2+12}{x^3+4x} dx$

III. EVALUATE EACH LIMIT.

10. $\lim_{x \rightarrow 0} \frac{\cos(x) - 1}{e^x - 1}$

11. $\lim_{x \rightarrow 0} \frac{(\sin(x) - x)}{(e^x - x - 1)}$

III. EVALUATE EACH INTEGRAL.

12. $\int_2^{\infty} \frac{1}{(x-1)^4} dx$