



MATHEMATICS
CH: 7- INTEGRATION WORKSHEET

Name: _____

Date: _____

Class: XII Sec: A

1. $\int \left(\sqrt{x} - \frac{1}{\sqrt{x}} \right)^2 dx$

Based on: Ex 7.1

2. $\int \frac{x^3 \sin(\tan^{-1} x^4)}{1+x^8} dx$
Ex 7.2

3. $\int \frac{\cos 2x + 2\sin^2 x}{\cos^2 x} dx$
Ex 7.3

4. $\int \frac{1}{\sqrt{9-25x^2}} dx$
Ex 7.4

5. $\int \frac{1}{\sqrt{7-6x-x^2}} dx$
Ex 7.4

6. $\int \frac{1}{\sqrt{11-8x-x^2}} dx$
Ex 7.4

7. $\int \frac{2x-3}{x^2-12x+1} dx$
Ex 7.4

8. $\int \frac{5x+1}{x^2-10x+6} dx$
Ex 7.4

9. $\int \frac{6x+7}{\sqrt{(x-5)(x-4)}} dx$
Ex 7.4

10. $\int \frac{x-5}{(x+3)(x-4)} dx$ Ex 7.5

11. $\int \frac{x+2}{(x-1)(x-5)(x+6)} dx$ Ex 7.5

12. $\int \frac{x}{(x-3)(x^2+5)} dx$ Ex 7.5



13. $\int \frac{(x^2+1)(x^2+5)}{(x^2+7)(x^2+3)} dx$ Ex 7.5

14. $\int \frac{2\sin x}{(\cos x+3)(\cos x-5)} dx$ Ex 7.5

15. $\int \frac{x+2}{(x-1)(x-2)} dx$ Ex 7.5

16. $\int \frac{1}{x(x^8+5)} dx$ Ex 7.5

17. $\int x^2 \ln x dx$ Ex 7.6

18. $\int e^x \left[\frac{1}{x} - \frac{1}{x^2} \right] dx$ Ex 7.6

19. $\int e^{2x} \cos x dx$ Ex 7.6
