

Practice of Integration w/ Sub - KEY

1. $\frac{2}{9}(3x-2)^{3/2} + C$ 2. $\frac{3}{32}(8x+5)^{4/3} + C$ 3. $-\frac{3}{4}\cos 4x + C$

4. $\frac{2}{9}(x^3-1)^{3/2} + C$ 5. $-\frac{3}{8}(1-2x^2)^{2/3} + C$ 6. $\frac{1}{5}x^5 + \frac{2}{3}x^3 + x + C$

7. $\frac{2}{3}(\sqrt{x}+3)^3 + C$ 8. $\frac{1}{4}\sin(4x-3) + C$ 9. $-\frac{1}{4}(t^2-4t+3)^{-2} + C$

10. $3\sin \sqrt[3]{x} + C$ 11. $\frac{1}{4}(\sin 3x)^{4/3} + C$ 12. $\frac{2}{5}x^{5/2} + 6x^{1/2} + C$

13. $-\frac{1}{3}(1+\cos x)^3 + C$ 14. $\frac{1}{3}(\cos x)^{-3} + C$ 15. $\sec x + C$

16. $\frac{1}{1-\sin x} + C$ 17. $\frac{1}{3}\tan(3x-4) + C$ 18. $\frac{1}{6}\sec^2 3x + C$
OR $\frac{1}{6}\tan^2 3x + C$

19. $-\frac{1}{5}\cot 5x + C$ 21. $-\frac{1}{2}\csc(x^2) + C$

22. $f(x) = -4\cos 2x + 3\sin x + x + 2$