

**Practice Assignment 1A**

1. Find an anti derivative of $\sin 3x$ by the method of inspection.
2. Find an anti derivative of $\sin 3x - 2e^{2x}$ by the method of inspection.
3. Integrate the function $\frac{3x^2}{1+x^3}$.
4. Integrate the function $\frac{(\log x)^3}{x}$.
5. Integrate the function $\frac{2\sin^{-1} x}{\sqrt{1-x^2}}$.
6. Find the integral $\int \frac{dx}{x^2-4}$.
7. Integrate the rational function, $\frac{3x}{(x+1)(x+2)}$.
8. Integrate the rational function, $\frac{1}{x^2-25}$.
9. Integrate the rational function, $\frac{2x-1}{(x-1)(x-2)(x-3)}$.
10. Integrate the rational function, $\frac{2x}{(x-1)(x-2)(x-3)}$.
11. Integrate $2x\sin x$.
12. Integrate the function $\sqrt{2-x^2}$.



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13. Evaluate the definite integral $\int_1^3 \frac{1}{x} dx$.