

1. Compute $\int e^{4x-9} dx$

2. Compute $\int x \sin(x^2 + 1) dx$

3. Compute $\int \frac{e^{\sqrt{x}}}{\sqrt{x}} dx.$

4. Compute $\int_1^4 \frac{e^{\sqrt{x}}}{\sqrt{x}} dx.$

5. Compute $\int \frac{\arctan(x)}{1+x^2} dx$

6. Compute $\int \frac{x^3}{\sqrt{1-x^4}} dx$

7. Compute $\int \frac{x}{\sqrt{1-x^4}} dx.$

8. Compute $\int \frac{\sec^2(x)}{\tan(x)} dx$

9. Compute $\int \sec^2(x) \tan(x) dx$

10. Compute $\int \frac{\sin(\theta)}{1 + \cos(\theta)} d\theta$

11. Compute $\int \frac{1}{x \ln(x)} dx$

12. Compute $\int \frac{\sin(4/x)}{x^2} dx$

13. Compute $\int \frac{e^x}{e^x - 3} dx$