

1. $\int \sin x \sqrt{1 + \cos x} \, dx$

2. $\int x^2 \sqrt{2 + x} \, dx$

3. $\int \cos x \sin(\sin x) \, dx$

4. $\int \sec^2(2x) \, dx$

5. $\int x^2 e^{x^3} \, dx$

6. $\int \frac{dx}{x(\ln x^2)^2}$

7. $\int \frac{dx}{x(\ln x)^3}$

8. $\int \frac{\sin \sqrt{x}}{\sqrt{x}} \, dx$

9. $\int \cot x \, dx$

10. $\int \frac{x^5}{x^2 + 1} \, dx$

11. $\int (x + 3)\sqrt{x - 1} \, dx$

12. $\int (1 - 2x)e^{1+x-x^2} \, dx$