

1. $\int 2x \sin x \, dx$

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

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3. $\int x \sin(x^2) \, dx$

4. $\int \sin x \sin 3x \, dx$

5. $\int x^2 \sin x \, dx$

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7. $\int 2x \ln x \, dx$

9. $\int 5x \cos x \, dx$

11. $\int (\ln x)^2 dx$

12. $\int e^x \sin x dx$

Problem 2 :

$$\int \frac{\ln(x)}{\sqrt{x}} \, dx$$

Problem 3 :

$$\int x^2 \sqrt{x-1} \, dx$$

Problem 5 :

$$\int \frac{\ln(\sqrt{x})}{\sqrt{x}} dx$$

Problem 7 :

$$\int \cos(x) \sin(x) dx$$

Problem 9 :

$$\int x^5 \ln(x) \, dx$$

Problem 10 :

$$\int \frac{x}{(x+5)^3} \, dx$$

Problem 11 :

Problem 12 :

$$\int x \sec^2(x^2 + 1) \, dx$$

Problem 15 :

$$\int x \cos(e^{-1}) \, dx$$

$$1. \int (5x + 4)^5 dx$$

$$3. \int \sqrt{4x - 5} dx$$

$$5. \int \cos(2x + 1) dx$$

$$2. \int 3t^2(t^3 + 4)^5 dt$$

$$4. \int t^2(t^3 + 4)^{-1/2} dt$$

$$6. \int \sin^{10} x \cos x dx$$

$$7. \int \frac{\sin x}{(\cos x)^5} dx$$

$$9. \int_{-\pi}^{\pi} \sqrt{x^3 + x^2}(3x^2 + 2x) dx$$

$$8. \int \frac{(\sqrt{x} - 1)^2}{\sqrt{x}} dx$$

$$10. \int_{-1}^1 \frac{x + 1}{(x^2 + 2x + 2)^3} dx$$

17. $\int_0^1 \frac{x}{\sqrt{x+1}} dx$

19. $\int \sqrt{x} \sqrt{x\sqrt{x}+1} dx$

21. $\int (x^2+1)\sqrt{x-2} dx$