

Интегрирования по частям.

$$\int u dv = uv - \int v du.$$

- 1 $\int x \sin 2x dx.$
- 2 $\int (6x^2 + 1) \cos 3x dx.$
- 3 $\int x 3^{2x} dx.$
- 4 $\int \ln(x^2 + 1) dx.$
- 5 $\int \ln^2 x dx.$
- 6 $\int x \operatorname{arctg} x dx.$
- 7 $\int (\operatorname{arctg} x)^2 dx.$
- 8 $\int \sin \ln x dx.$
- 9 $\int \cos 2x e^x dx.$

Дома

1. $\int (3x - 1) 3^{2x} dx$
2. $\int (x^2 - 2x) \sin 2x dx.$
3. $\int \frac{\ln x}{x^3} dx$
4. $\int x \arccos(x^2) dx.$
5. $\int \frac{x^2}{\sqrt{1-x^2}} dx$
6. $\int \sqrt{a^2 - x^2} dx$
7. $\int \frac{x^2 e^x}{(x+2)^2} dx$
8. $\int \frac{\arcsin \sqrt{x}}{\sqrt{1-x}} dx$