

Контрольная работа №4

1. $\int (3 - 2x)^4 dx$

2. $\int x \cdot \cos(x^2) dx$

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

4. $\int \frac{e^x dx}{1 + e^{2x}}$

5. $\int \frac{\sqrt{1 + \ln x}}{x} dx$

6. $\int \frac{(x + 2) dx}{\sqrt{x^2 + 4x + 6}}$

7. $\int_{-2}^2 x \cdot e^{-\frac{x}{2}} dx$

8. $\int_0^{\pi/2} \cos^4 2x dx$

9. $\int_1^2 \frac{dx}{x^2 - 2x + 3}$

10. $\int_{-2}^3 f(x) dx, f(x) = \begin{cases} -x, & x < 0, \\ x^2, & 0 \leq x < 2, \\ 2, & x \geq 2 \end{cases}$