

Урок 6 Интегрирование показательной и логарифмической функций

$$\int e^x dx = e^x + C$$

$$\int a^x dx = \frac{a^x}{\ln a} + C$$

$$1. \int (e^x + \cos x) dx$$

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

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

$$4. \int (e^{3x} + \sin 4x) dx$$

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

$$6. \int (3^x + 5x + e^{3x}) dx$$

$$7. \int (4 - 2 \cos 3x - e^{5x}) dx$$

$$8. \int e^{-3x} dx$$

$$9. \int \left(4e^{\frac{x}{2}} + 2 \sin 4x - 7x \right) dx$$

$$10. \int (4^{3x} - x + 2e^{-x}) dx$$

$$11. \int (\cos(4x - 5) + 7^{2x}) dx$$

$$12. \int (4^{3x} + x - e^{5x}) dx$$

$$13. \int \left(5^{\frac{x}{2}} + 2x - \frac{3}{x} \right) dx$$

$$14. \int \left(\frac{12}{x} - x + \frac{1}{\cos^2 3x} \right) dx$$

$$15. \int \left(\frac{x}{3} - \frac{3}{x} \right) dx$$

$$16. \int \left(\frac{5}{x} - x + 4e^{3x} \right) dx$$

$$17. \int \left(3x^3 - \sin(4x - 2) + \frac{5}{x} \right) dx$$

$$18. \int \left(\frac{5}{x} - \frac{4}{x^2} + 3^{2x} \right) dx$$

$$19. \int (e^x + e^{-x} - 2) dx$$

$$20. \int ((5x - 2)^2 - 3 \sin 4x) dx$$