

КОНТРОЛЬНАЯ РАБОТА №1

ФИО.....

Группа ФП-.....

1	2	3	4	5	6	7	8	Итого

**Вариант 0**

1.  $y = 8^{5x^2-1} + 5 \ln 3$

5.  $y = (\cos(3x^2 - 6x + 9) - 4)^9$

2.  $y = \sqrt[4]{3x - 10} - \frac{6}{\sqrt{x + 2}}$

6.  $y = \ln^5 (\sin^3(\cos^2(3x^2 - 7)))$

3.  $y = \cos(3x - 7) \cdot \ln(2x + 5)$

7.  $y = (\operatorname{tg} 2x)^{5x}$

4.  $y = \frac{e^{5-11x}}{\operatorname{arctg}(4x + 1)}$

8.  $y = x \cdot \sin 5x, y''(x) = ?$

## Задачи для подготовки к контрольной работе №1

- $y = \operatorname{ctg} 2 - 5 \sin(3 - 2x^5)$
- $y = \arccos \sqrt{2x - 4} + \operatorname{tg} 10$
- $y = 5 \sin(6x^4 - 2x^3) - 2^{1/8}$
- $y = \frac{2}{\sqrt{3-5x}} + 7\sqrt{6x-4}$
- $y = \sqrt{2x-5} - \frac{5}{\sqrt[3]{2x+7}}$
- $y = \sqrt[3]{3x+15} + 4\sqrt{5-x}$
- $y = 7^{3-2x} \cdot \arccos(2-7x)$
- $y = \arcsin 3x \cdot \operatorname{tg}(4-x)$
- $y = \cos(2x+5) \cdot 9^{2x-5}$
- $y = \frac{\arcsin 6x}{e^{3x+4}}$
- $y = \frac{\ln(2-8x)}{\operatorname{arcctg}(4x+3)}$
- $y = \frac{7^{3x}}{\ln 5x}$
- $y = (3 - e^{\operatorname{arcctg} x})^6$
- $y = (5 - \cos(3^x))^6$
- $y = (2^{\arccos x} - 3)^5$
- $y = 5 \cos^5(\sin^2(3x^2 - 16x))$
- $y = 9 \ln^7(\operatorname{tg}^2(3x^2 - 16))$
- $y = 2 \operatorname{arctg}^4(\cos^4(\sin(3x)))$
- $y = (\cos 7x)^{2x-1}$
- $y = (7x)^{x^3}$
- $y = (\operatorname{ctg} x)^{5x-4}$
- $y = x \cdot \ln^3 x, y''(x) - ?$
- $y = \cos^2(3x), y''(x) - ?$
- $y = x \cdot e^{x^2}, y''(x) - ?$