

**Устно вычислите  
значение производной**

$$(5)' = 0$$

$$(x)' = 1$$

$$(5x)' = 5$$

$$(2x^4)' = 8x^3$$

$$\begin{aligned} (-0,5x^6)' &= \\ &= -3x^5 \end{aligned}$$

$$(2x - 3)' = 2$$

$$\begin{aligned} & \left( (2x - 3)^3 \right)' = \\ & = (2x - 3)' \cdot 3(2x - 3)^2 \\ & = 6 \cdot (2x - 3)^2 \end{aligned}$$



$$\left(e^x\right)' = e^x$$

$$\begin{aligned} \left( e^{3x+2} \right)' &= \\ &= e^{3x+2} \cdot (3x+2)' \\ &= 3e^{3x+2} \end{aligned}$$

$$(\ln x)' = \frac{1}{x}$$

$$\left( \ln(3x+5) \right)' =$$

$$3. \frac{1}{3x+5} = \frac{3}{3x+5}$$

$$1) y = \ln(2x - 7)$$

$$2) y = \ln(1 + 5x)$$

7)

$$y' = (e^{4x-12})'$$

$$3) y = \log_3 x$$

$$4) y = \log_{0,3} x + \sin x$$

$$5) y = \ln x - \cos x$$

$$6) y = x \ln x$$

$$1) y = \ln(2x - 7)$$

$$\frac{\frac{2}{2x-7}}{5}$$

$$2) y = \ln(1 + 5x)$$

$$\frac{1}{1+5x}$$

$$3) y = \log_3 x$$

$$\frac{1}{x \ln 3}$$

$$4) y = \log_{0,3} x + \sin x$$

$$\frac{1}{x \ln 0,3} + \cos x$$

$$5) y = \lg x - \cos x$$

$$\frac{1}{x \ln 10} + \sin x$$

$$6) y = x \ln x$$

$$\ln x + 1$$

$$y' = (e^{4x-12})' = 4e^{4x-12}$$