Урок 6, задание 5

$$y = \frac{(2-x^2)^3 \cdot (x-1)^2}{(2x^3-3x)\cdot e^x}$$

$$\ln y = 3\ln(2-x^2) + 2\ln(x-1) - \ln(2x^3-3x) - x$$

$$\frac{y'}{y} = \frac{3}{2-x^2}(-2x) + \frac{2}{x-1} - \frac{6x-3}{2x^3-3x} - 1$$

$$y' = y\left(\frac{-6x}{2-x^2} + \frac{2}{x-1} - \frac{6x-3}{2x^3-3x} - 1\right)$$

$$y' = \frac{(2-x^2)^3(x-1)^2}{(2x^3-3x)\cdot e^x}\left(-\frac{6x}{2-x^2} + \frac{2}{x-1} - \frac{6x-3}{2x^3-3x} - 1\right)$$