

D. Ú. → VZOROVÉ RIEŠENIE:

$$f(x,y) = 2x^3 + 9xy + 15x^2 + 27y^2$$

$$\frac{\partial f}{\partial x} = 6x^2 + 9y + 30x \quad \left| \quad \frac{\partial f}{\partial y} = 9x + 54y \right.$$

STACIONÁRNE BODY: 1)  $6x^2 + 9y + 30x = 0$

2)  $9x + 54y = 0$

~~$y = 63 = 0$~~

$$\begin{array}{l} 54y = -9x \\ 9 \cdot 6y = -9x \\ y = -\frac{1}{6}x \end{array} \quad \left| \quad \begin{array}{l} 6x^2 - \left(\frac{9}{6}x\right) + 30x = 0 \\ 6x^2 - \frac{3}{2}x + 30x = 0 \\ \quad \quad \quad \underline{\quad \quad \quad} \\ \quad \quad \quad 1,5 \end{array} \right.$$

$$6x^2 + 28,5x = 0$$

$$6x^2 - \frac{3}{2}x + \frac{60}{2}x = 0$$

$x_1 = 0$

$$6x^2 + \frac{57}{2}x = 0$$

$x_2$

$$6x + \frac{57}{2} = 0$$

$$x \cdot \left(6x + \frac{57}{2}\right) = 0$$

$$x = -\frac{57}{2 \cdot 6}$$

$$= -\frac{57}{12} = -4,75$$

STAC. BODY SU:

$$\left\{ (0,0), \left( -4,75, 0,792 \right) \right\}$$
$$\left\{ \left( -\frac{57}{12}, \frac{57}{72} \right) \right\}$$
$$\left\{ -\frac{19}{4}, \frac{19}{24} \right\}$$