

## Análise Matemática II

### LISTA 9

$$(1) \begin{bmatrix} 1 + 2u + 2v & -1 - 2v \\ 1 - 2u - 2v & 3 + 2v \end{bmatrix}$$

$$(2) \begin{bmatrix} -2e^3 & 2e^3 & -2e^3 \\ 2 & -2 & 4 \end{bmatrix}$$

$$(3) \text{ (a) } 0,0$$

$$\text{ (b) (i) } 1$$

$$\text{ (ii) } 0$$

$$\text{ (c) } f \text{ não dif em } (0,0)$$

$$(4) -\frac{1}{4} \frac{\partial g}{\partial x} \left( \frac{1}{2}, 1 \right), 0$$

$$(5) \text{ (a) } \begin{bmatrix} 2xf'(x^2) + 2xf'(x^2 + y^2) & 2yf'(x^2 + y^2) & 0 \\ yzf'(xyz) & xzf'(xyz) & xyf'(xyz) \end{bmatrix}$$

$$\text{ (b) } \begin{bmatrix} -24 & -4 & 3 \end{bmatrix} e^{-3}$$

$$(6)$$

$$(7)$$