(2c) continuação

verificação: $\frac{\partial \varphi}{\partial x} = -x + y$ ✓

$\frac{\partial \varphi}{\partial y} = -y + x$ ✓

(2d)

$$\int_\eta F \cdot \underline{n}\, ds = \iint_K \operatorname{div} F \, dx\, dy = 0$$

$$\int_\eta G \cdot \underline{n}\, ds = \iint_K \operatorname{div} G \, dx\, dy$$

$= -2\,(\text{área } \bar{K})$

$$\text{area}(\bar{IS}) = \begin{vmatrix} 5 & 4 \\ 1 & 3 \end{vmatrix}$$

$= 15 - 4 = 11$

$$\int_\eta G \cdot \underline{n}\, ds = -22$$