

9.9.

$$(x^3 - x^2 y)dx + xy^2 dy = \{ \text{Greens formel} \} = \int_{\gamma}$$

$$= \int_D \frac{\partial}{\partial x}(xy^2) - \frac{\partial}{\partial y}(x^3 - x^2 y) dx dy =$$

$$= \int_D \{ y^2 - (-x^2) \} dx dy =$$

$$\begin{aligned} &= \text{Polära} \\ &= \text{koordinater} \end{aligned} \quad = \int_{D_{r\theta}} r^2 r dr d\theta = 2\pi \frac{2^4}{4} = 8\pi$$

SVAR:

$$\int_{\gamma} (x^3 - x^2 y) dx + xy^2 dy = 8\pi$$