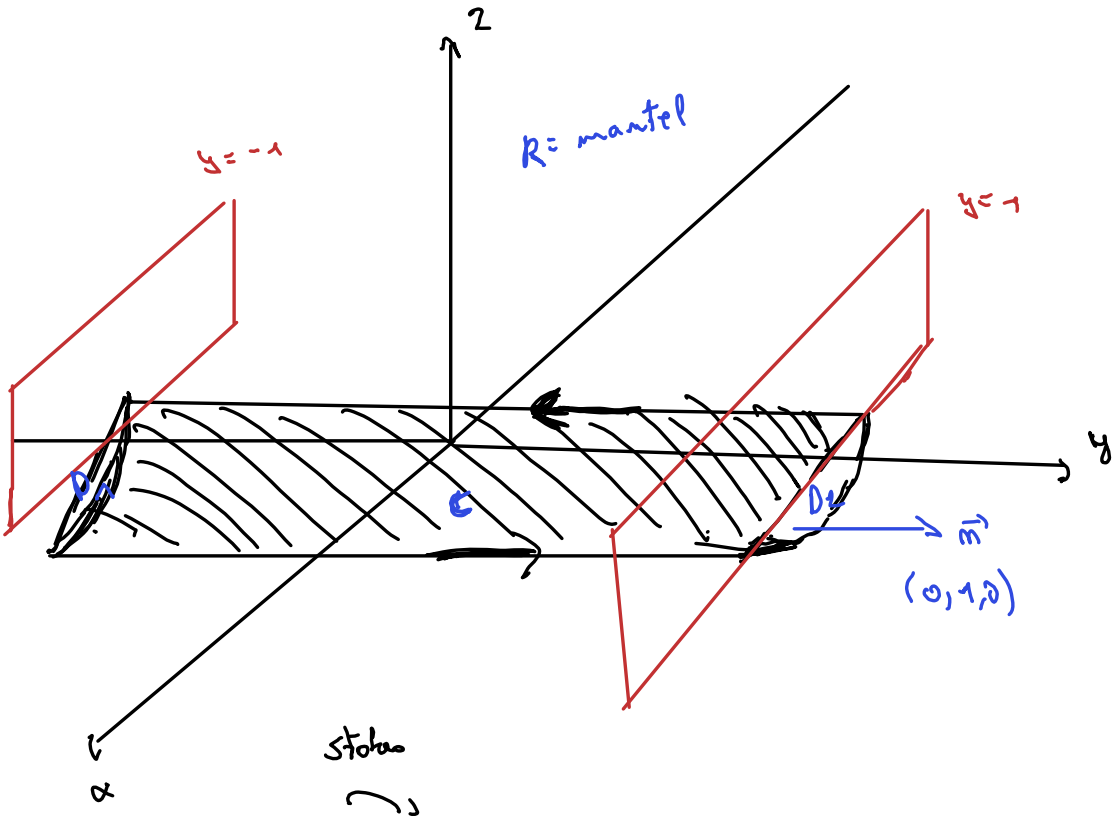
$x^2 + z^2 = 1 \xrightarrow{r=1}$ dus b is rij (evolved over y)

$F = (-y^2, -x, z)$

Definieer parameters: (variant van cilinder coords.)

$(x, y, z) \to (\cos\theta, y, \sin\theta)$

dus: $\cos^2\theta + \sin^2\theta = 1$



stokes

B) $\int_C F \cdot dx = \int_S (\nabla \times F) \cdot n \cdot d\sigma$

$F(x,y,z) = (-y^2, -x, z)$

curl $(0, 0, -1+2y)$

$n \cdot d\sigma = \begin{vmatrix} i & j & k \\ -\sin\theta & 0 & \cos\theta \\ 0 & 1 & 0 \end{vmatrix} = (-\cos\theta, 0, -\sin\theta)$

$\int_{-1}^{1} \int_{\pi}^{2\pi} n \cdot d\sigma \cdot \text{curl} \cdot d\theta\, dy = -4 \to$ maar dit wordt (4)