4.6.1

$$\underline{v} = -wy\,\underline{i} + wx\,\underline{j}$$

$$\frac{d\psi}{dy} = wy \quad , \quad \frac{d\psi}{dy} = wx$$

siden $v_x = -\frac{d\psi}{dy}$

I $\int wy\,dy = \frac{1}{2}wy^2 + f_1(x)$

II $\int wx\,dx = \frac{1}{2}wx^2 + f_1(y)$

for at dette skal gi samme resultat

I $\frac{1}{2}wy^2 + \frac{1}{2}wx^2 = \frac{1}{2}w(y^2+x^2)$

II $\frac{1}{2}wx^2 + \frac{1}{2}wy^2 = \frac{1}{2}w(y^2+x^2)$

derved er strømfunksjonen $\frac{1}{2}w(y^2+x^2) = \psi$

strømlinjene finner man ved å sette $\psi = \psi_0$, der $\psi > 0$