

Aufgabe 8

$$\frac{\partial F_1}{\partial x} = \left(-L_1 \left(-\frac{1}{2} \right) \frac{2(x+L)}{\sqrt{\dots}^3} \right) (x+L) + \left(1 - \frac{L_2}{\sqrt{\dots}} \right) + \{ \}$$

$$= 1 + L_1 \frac{(x+L)^2 - [(x+L)^2 + y^2]}{\sqrt{\dots}^3} + \{ \}$$

$$= 1 - \frac{L_1 y^2}{\sqrt{\dots}^3} + \{ \}$$

$$= 2 - \frac{L_1 y^2}{\sqrt{(x+L)^2 + y^2}^3} - \frac{L_2 y^2}{\sqrt{(x-L)^2 + y^2}^3}$$