$$\frac{e^2 \, \alpha^2 \, \omega_0{}^4}{8 \, \pi \, c^2} z$$
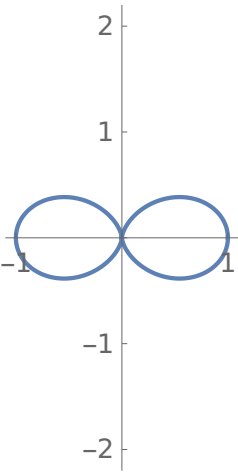
$$\frac{e^2 \, \alpha^2 \, \omega_0{}^4}{8 \, \pi \, c^2} x$$