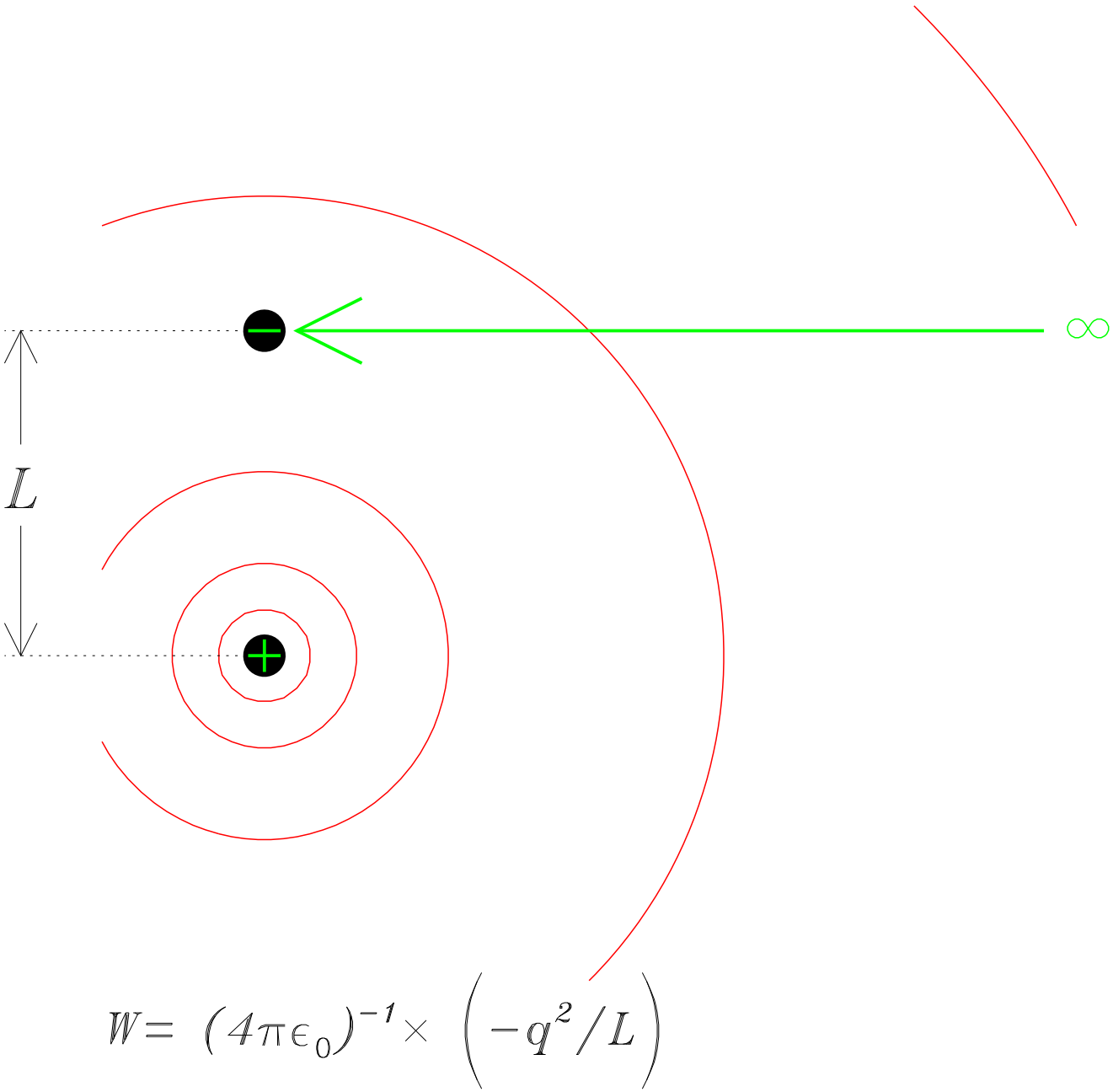
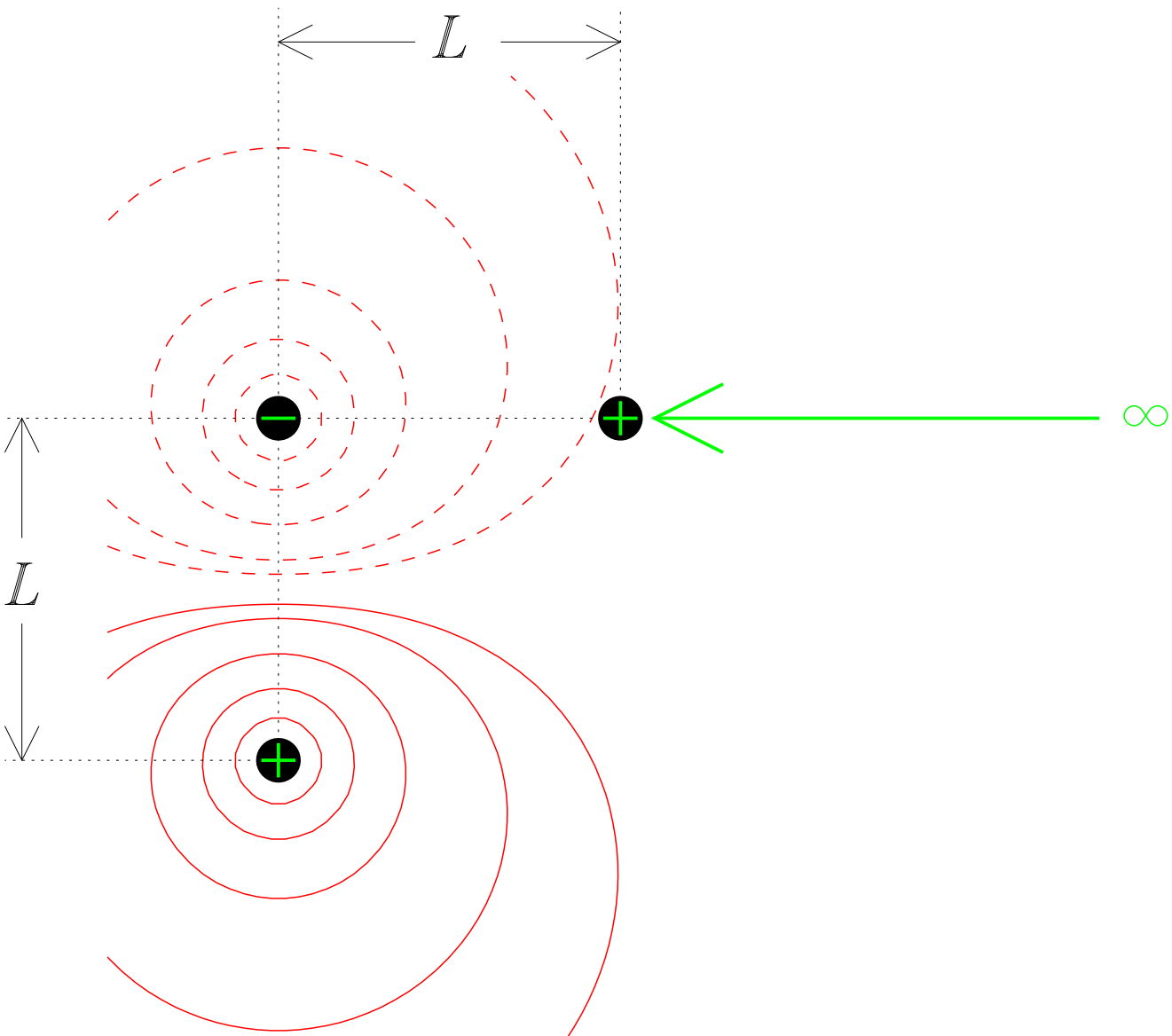
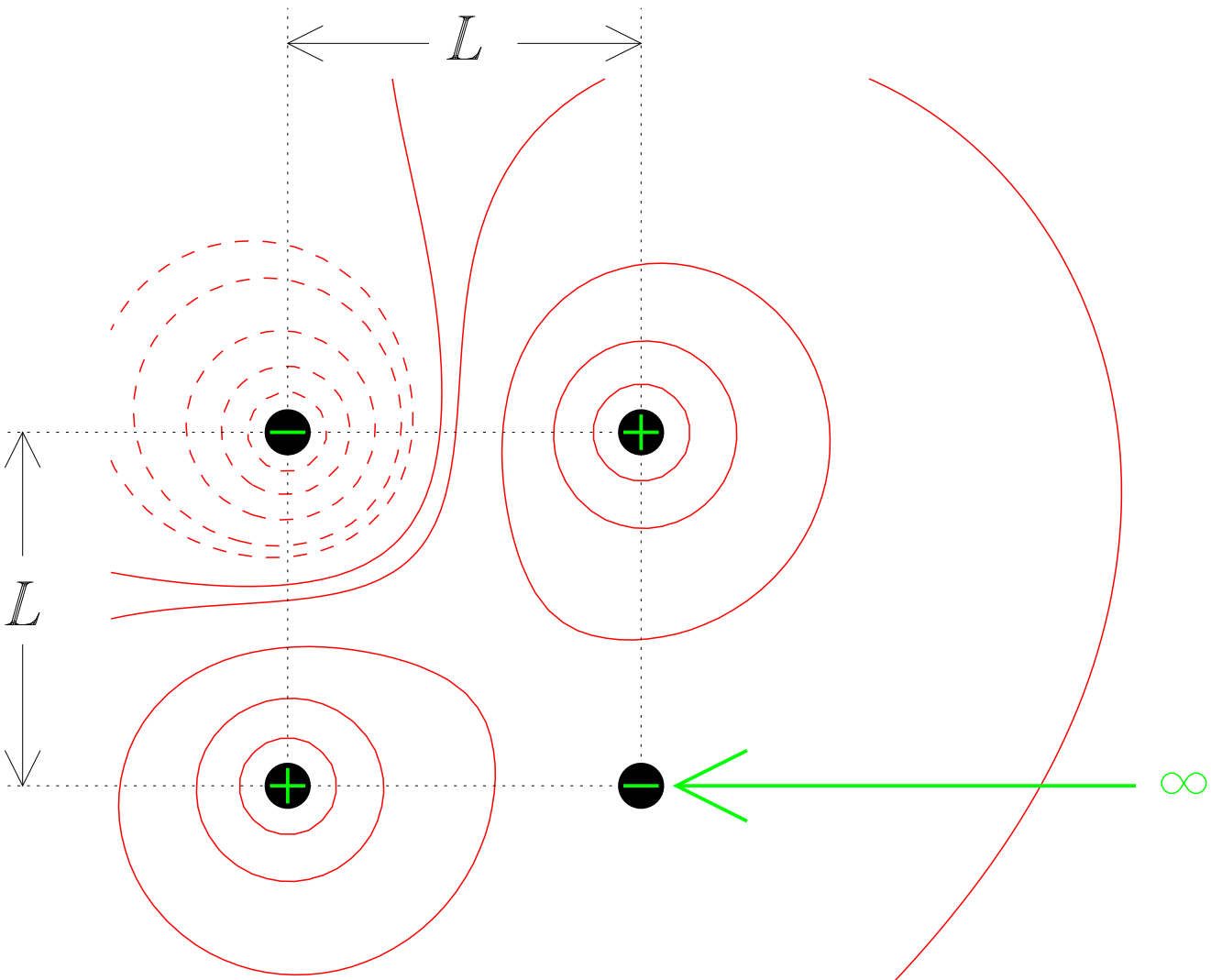
$W = 0$



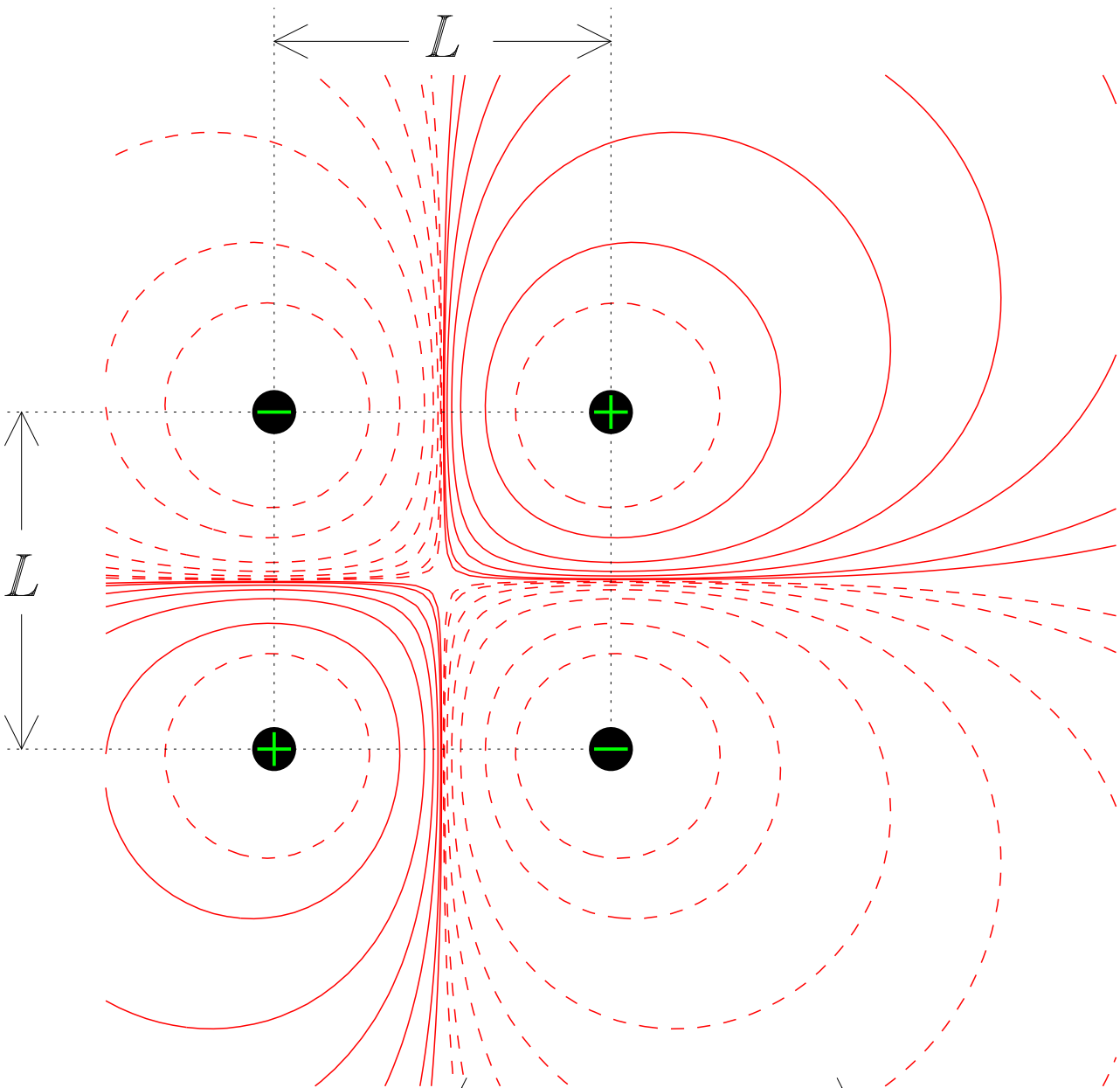
$$W = (4\pi\epsilon_0)^{-1} \times \left(-q^2/L\right)$$



$$W = (4\pi\epsilon_0)^{-1} \times \begin{pmatrix} -\,q^2/L \\ -q^2/L \;+q^2/(\sqrt{2}L) \end{pmatrix}$$



$$W = (4\pi\epsilon_0)^{-1} \times \begin{pmatrix} -q^2/L \\ -q^2/L + q^2/(\sqrt{2}L) \\ -q^2/L - q^2/L + q^2/(\sqrt{2}L) \end{pmatrix}$$



$$E = (4\pi\epsilon_0)^{-1} \times \left(-2.5857 \; q^2/L \right)$$