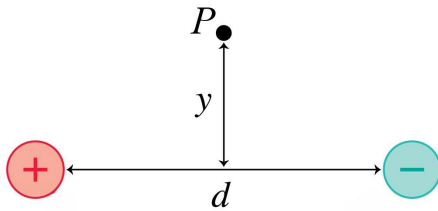


- (1^{pt}) 1. Consider the equal, but opposite, point charges shown in the figure below. What is the electric potential at point P ? P is a distance $\sqrt{y^2 + (d/2)^2}$ from both charges.



- (1^{pt}) 2. The electric potential due to some configuration of charge is given by:

$$V(r) = A \frac{e^{-\lambda r}}{r}.$$

Find an expression for the corresponding electric field $\mathbf{E}(r)$.