58. We treat the system as a superposition of a disk of surface charge density σ and radius R and a smaller, oppositely charged, disk of surface charge density $-\sigma$ and radius r. For each of these, Eq 25-37 applies (for $z > 0$)

$$V = \frac{\sigma}{2\varepsilon_0}\left(\sqrt{z^2+R^2} - z\right) + \frac{-\sigma}{2\varepsilon_0}\left(\sqrt{z^2+r^2} - z\right) \ .$$

This expression does vanish as $r \to \infty$, as the problem requires. Substituting $r = R/5$ and $z = 2R$ and simplifying, we obtain

$$V = \frac{\sigma R}{\varepsilon_0}\left(\frac{5\sqrt{5} - \sqrt{101}}{10}\right) \approx \frac{\sigma R}{\varepsilon_0}(0.113) \ .$$