3-5)

We could possibly consider this to be two parallel capacitors of areas A/2 and spacing d. Some weird things would be happening at the boundary. Then,

$$C = C_1 + C_2 = \frac{\kappa_1 \varepsilon_o (A/2)}{d} + \frac{\kappa_2 \varepsilon_o (A/2)}{d} = \frac{(\kappa_1 + \kappa_2)\varepsilon_o A}{2d} = \frac{(\kappa_1 + \kappa_2)}{2}\frac{\varepsilon_o A}{d}.$$

Note that if the dielectric constants become equal, this reverts to the expected $C = \kappa\varepsilon_o A/d$.