

13. The equivalent capacitance is

$$C_{\text{eq}} = \frac{(C_1 + C_2)C_3}{C_1 + C_2 + C_3} = \frac{(10.0 \mu\text{F} + 5.00 \mu\text{F})(4.00 \mu\text{F})}{10.0 \mu\text{F} + 5.00 \mu\text{F} + 4.00 \mu\text{F}} = 3.16 \mu\text{F} .$$