

71. We reduce the circuit, starting with C_1 and C_2 (in series) which are equivalent to $4\mu\text{F}$. This is then parallel to C_3 and results in a total of $8\mu\text{F}$, which is now in series with C_4 and can be further reduced. However, the final step in the reduction is not necessary, as we observe that the $8\mu\text{F}$ equivalence from the top 3 capacitors has the same capacitance as C_4 and therefore the same voltage; since they are in series, that voltage is then $12/2 = 6\text{ V}$.