MATH265 Course Project Par

RC Circuit Analysis
Capacitance and
Resistance Calculations
Graphs and Summary

Capacitance Calculation

- Charge equation: $Q = Qf (1 - e^{(-t/\tau)})$
- Final charge (Qf) $\approx 4.99 \times 10^{-6}$ C
- Using $Qf = C * \varepsilon$:
- $C = Qf / \varepsilon$
- $C = (4.99 \times 10^{-6} \text{ C}) / (5\text{V})$
- $C \approx 0.999$ μF