

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Partner: \_\_\_\_\_

Nominal Value of your capacitor, in  $\mu\text{F}$ :  $C_{\text{nom}} =$  \_\_\_\_\_  $\mu\text{F}$

Value of your resistor, in  $\text{k}\Omega$ :  $R =$  \_\_\_\_\_  $\pm$  \_\_\_\_\_  $\text{k}\Omega$

*Part I: Discharging*

**Linest results: Discharging**

Fill in the chart with your linest results from your linear plot:


Voltage of last data point:  $V_{\text{final}} =$  \_\_\_\_\_  $\text{V}$

Computed Voltage of power supply:  $V_{\text{PS}} =$  \_\_\_\_\_  $\pm$  \_\_\_\_\_  $\text{V}$

Computed time constant: *Time Constant* = \_\_\_\_\_  $\pm$  \_\_\_\_\_ seconds

Computed capacitance:  $C_1 =$  \_\_\_\_\_  $\pm$  \_\_\_\_\_  $\text{mF}$

*Part II: Charging*

**Linest results: Charging**

Fill in the chart with your linest results from your linear plot:


Voltage of last data point:  $V_{\text{final}} =$  \_\_\_\_\_  $\text{V}$

Computed Voltage of power supply:  $V_{\text{PS}} =$  \_\_\_\_\_  $\pm$  \_\_\_\_\_  $\text{V}$

Computed time constant: *Time Constant* = \_\_\_\_\_  $\pm$  \_\_\_\_\_ seconds

Computed capacitance:  $C_2 =$  \_\_\_\_\_  $\pm$  \_\_\_\_\_  $\text{mF}$