Class Survey

We are inviting you to complete a short, **anonymous survey** because **we need your feedback**. Our goal is to improve the learning environment and make this class a better place for you to learn. Your honest feedback is very important to us because we can't improve without it, and we won't see your name in connection to your answers. We'll ask for feedback multiple times so that we can keep track of what's working for you, and what isn't.

This survey is being used in ~50 classes this Fall here at UNM, by Student Experience Fellows, so if you filled out a survey for a different class, this will look very similar. The survey link is specifically about this class.

- To start the 5-minute, anonymous survey, click the link next to your class and follow the prompts.

- **To complete in class: Go to perts.me (Links to an external site.) and enter your participation code manually.**
- You will need to use the email associated with your UNM class registration in order to fill out the survey.
- If possible, please complete on today. The survey results are compiled once a week on Mondays.

Classes	Paticipation Code
ECE203, Circuit Analysis I	6DAC (Links to an external site.)

Announcements

HW2 for Chapter 2 due today by 11:59pm
HW3 for Chapter 3 due Friday, Sept. 16

I am Engineering and Computer Science & Find Your Pack - Come let us know what it means to be an engineer or computer scientist, network with others with similar interests, and see what the the School of Engineering student organizations have to offer
What: 1st & 2nd Year Student Event Series
When: Friday, September 9, 2022. 1 - 4:30 PM.
Where: Centennial Engineering Center - STAMM Room (1044)

Next week is UNM Suicide Awareness Week. See link in Canvas Announcements for Full Details.

ECE 203

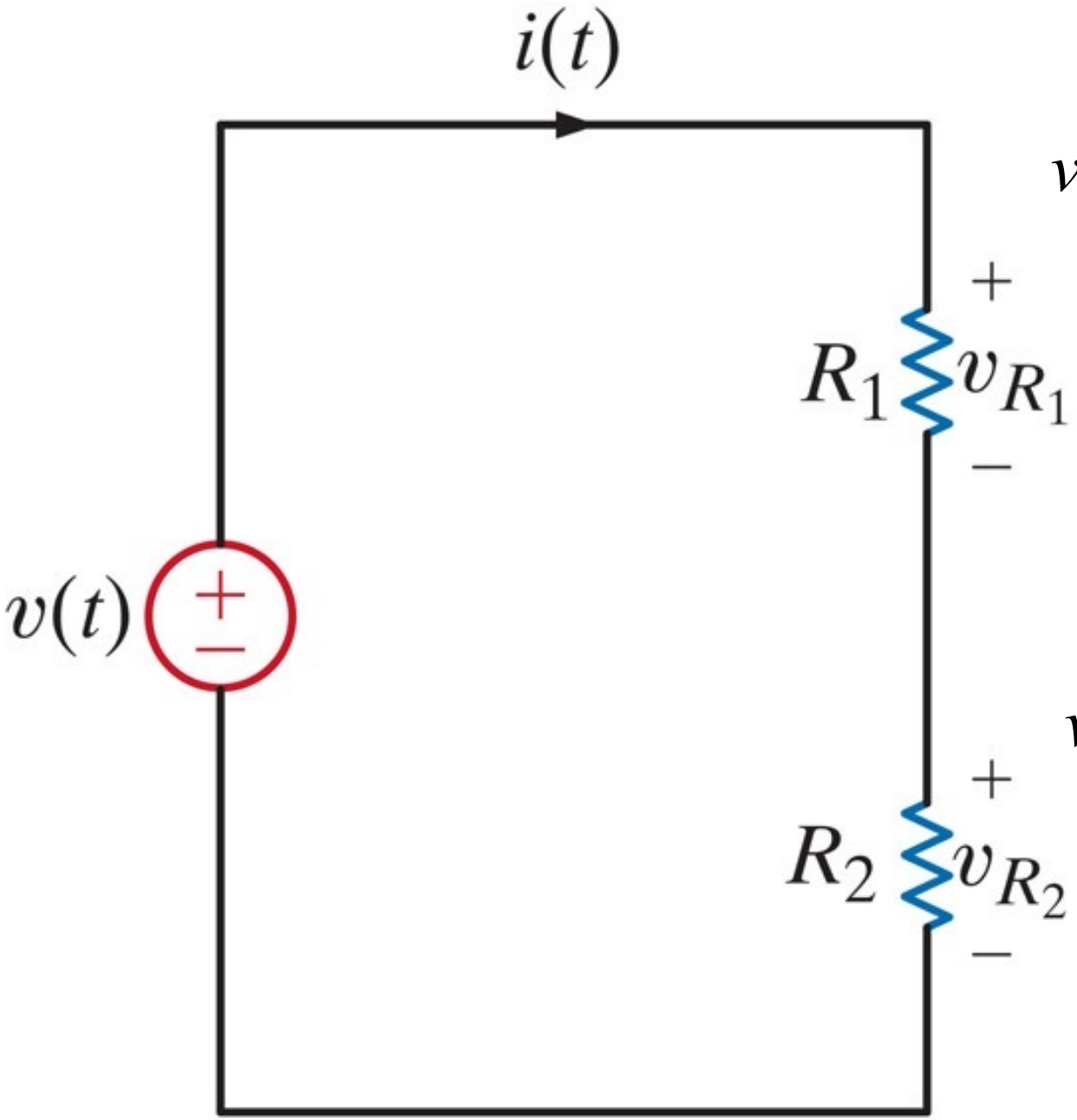
Circuits I

Voltage Dividers and Current Dividers

Lecture 3-2

1st Useful Circuit: Voltage Divider

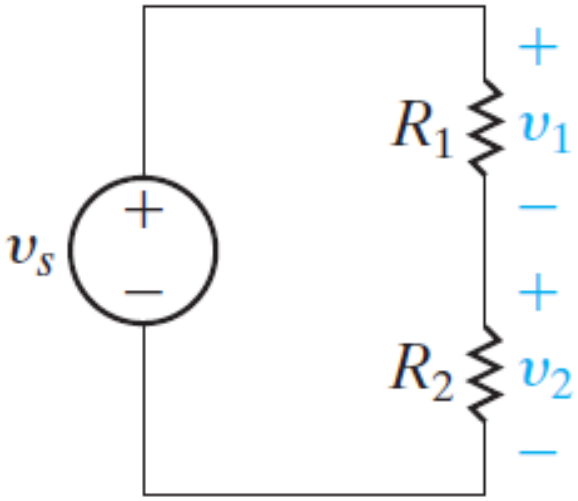
- Voltage applied across a **series** connection of **resistors**.
- Voltage splits
- Higher voltage appears across the resistor with the highest resistance
- The larger voltage appears across the larger resistor



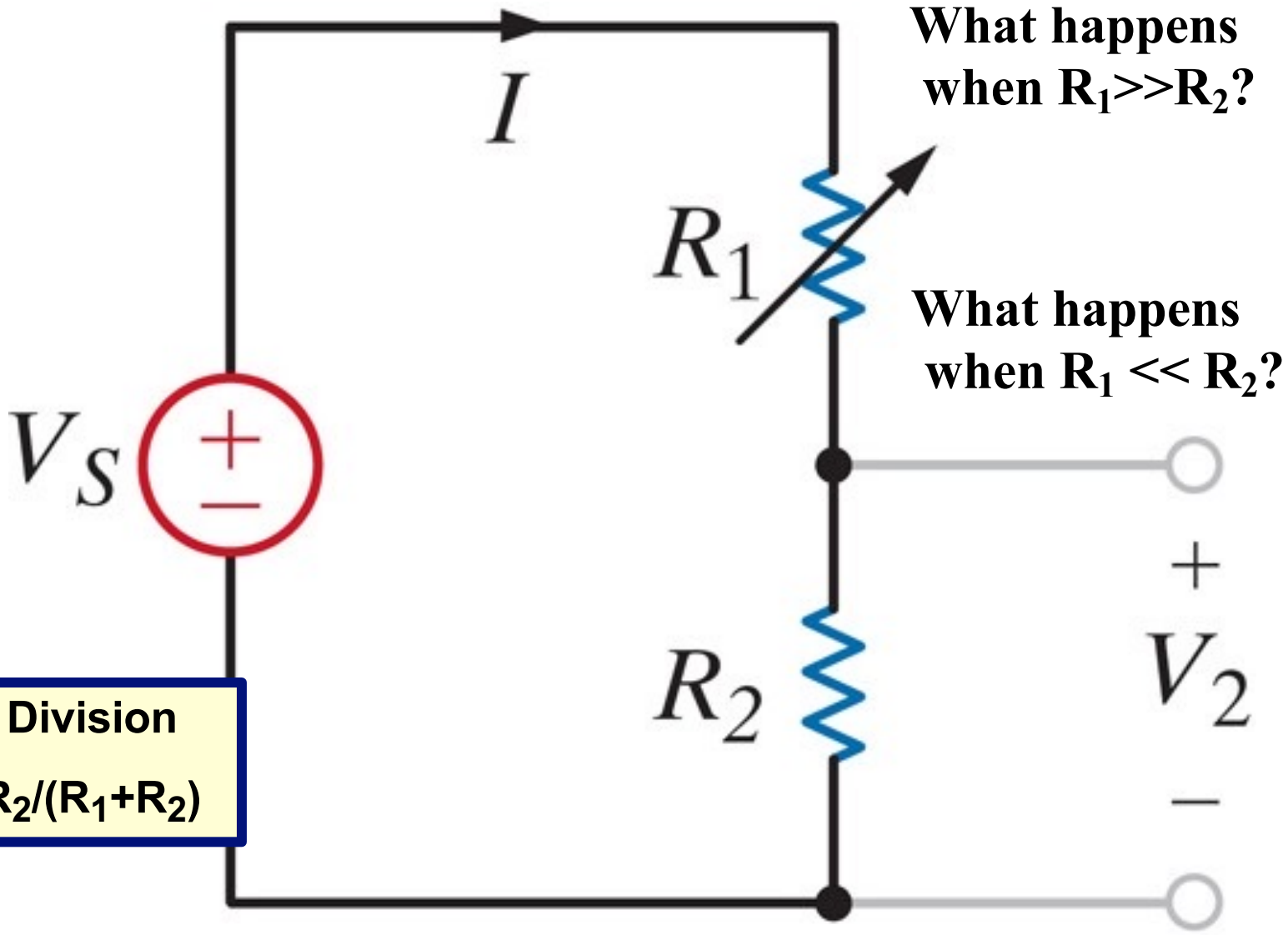
$$v_{R1}(t) = v(t)\frac{R_1}{R_1 + R_2}$$

$$v_{R2}(t) = v(t)\frac{R_2}{R_1 + R_2}$$

Voltage Divider Example



Application: Voltage Divider



What happens when $R_1 >> R_2$?

What happens when $R_1 << R_2$?

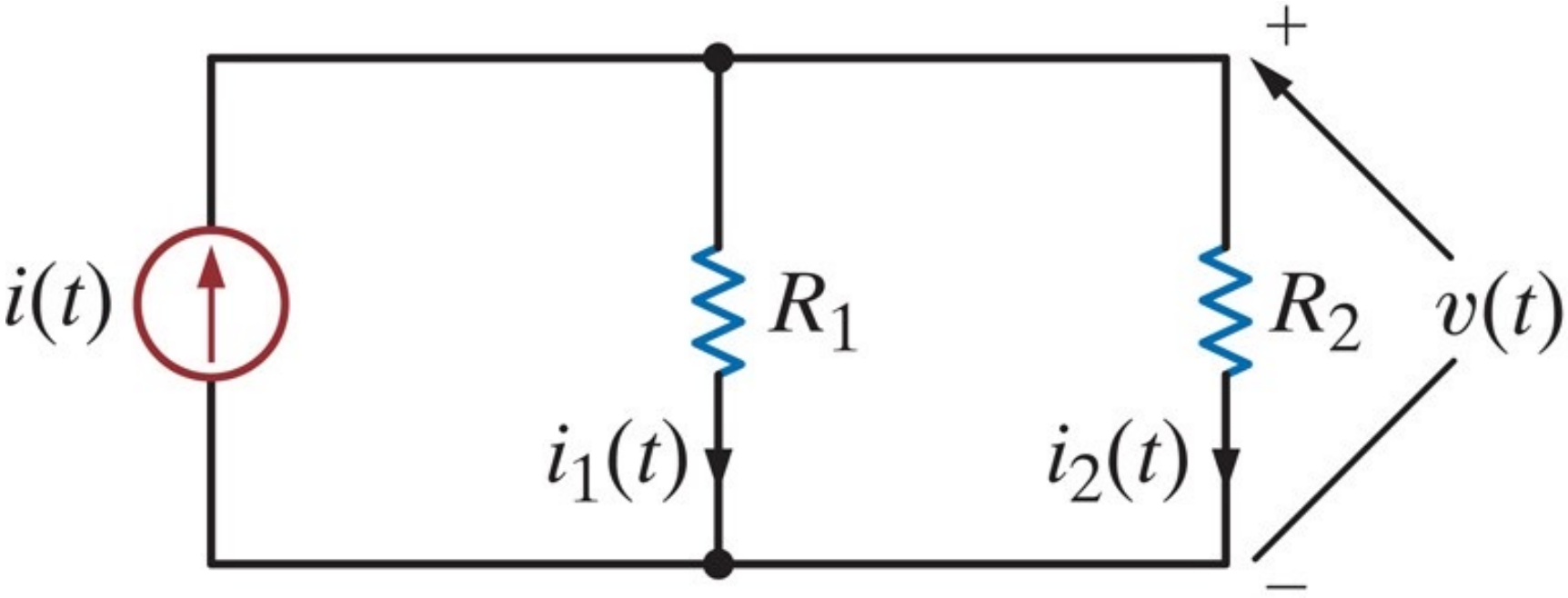
Voltage Division

$V_2 / Vs = R_2/(R_1+R_2)$

2nd Useful Circuit: Current Divider

- Uses **parallel** connection of **resistors**

Current Divider



$i_1(t) = [R_2/(R_1 + R_2)]\, i(t)$

$i_2(t) = [R_1/(R_1 + R_2)]\, i(t)$

$i(t) = i_1(t) + i_2(t)$

$v(t) = i_1(t)\, R_1 = i_2(t)\, R_2$

Highest current flows through branch with lowest resistance.

Current Divider Example