

CONDITIONS EXERCISE 1

Skills: Conditions

Heating/Cooling exercise:

Define two variables: **actualTemp** and a **desiredTemp**. Write conditionals to tell the heating & cooling system what to do. Log one of these three things: Run A/C, Run heat, or Standby.

Extended Challenges second exercise:

Start with two variables: **tempCelsius** (a number) and **targetUnit** (a string, either "C", "F", or "K"). Write a switch statement that checks the targetUnit and logs the temperature converted to that unit. Notes: K stands for Kelvin. C requires no conversion, print out the original temp.



CONDITIONS EXERCISE 2

Skills: Conditions

Task: Identify the longest of three names.

Build Specifications:

Start with three variables **name1**, **name2**, and **name3** which hold three names.

The code should output the longest of the three names. e.g., "Ada Lovelace has the longest name.". If there is a tie between any two, list both. e.g., "Charles and Brendan tie for the longest name.". Or if all three names are the same length, output "All three names, Dorothy, Charles, and Brendan, are the same length."

Make sure to test your code with many different combinations of lengths. There are 7 possible outcomes.



LOOPS EXERCISE 1

Skills: Conditions and loops

Counting Loops:

- Use a for loop to log numbers from 1 to 10, then another for loop to count down, logging numbers from 10 to 1.
- Repeat the exercise with a while loop.
- Repeat with a do while.
- Create this array: `const numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]`. Use a for ... of to loop through this array and log all the numbers. (Note: we're not asking you to also count down on this one.)

Extended Challenge / Second Exercise:

Given any string, use a loop to add padding (extra spaces) to the front to make the string ten characters long. For example, given the string "planet", log " planet" (add four spaces), and for the string "headlamp", log " headlamp" (add two spaces).

