Exercise1: Declaring variables

In this exercise, you will practice declaring variables.

Tasks

1. Declare a new variable named petDog and give it the name Rex.
2. Declare a new variable named petCat and give it the name Pepper.
3. Console.log the petDog variable.
4. Console.log the petCat variable.
5. Console.log the text "My pet dog's name is: " and the petDog variable.
6. Console.log the text "My pet cat's name is: " and the petCat variable.
7. Declare another variable and name it catSound. Assign the string of "purr" to it.
8. Declare another variable and name it dogSound. Assign the string of "woof" to it.
9. Console.log the variable petDog, then the string "says", then the variable dogSound.
10. Console.log the variable petCat, then the string "says", then the variable catSound.
11. Reassign the value stored in catSound to the string "meow".
12. Console.log the variable petCat, then the string "now says", then the variable catSound.

Make sure to output all your variables. Feel free to play.

Exercise 2: Advanced use of operators

Task 1: Using the logical && operator

You are coding an RPG game where each character has certain skill levels based on the value saved in their score.

1. Create a variable named score and set it to 8.
2. Use console.log() that includes the string "Mid-level skills:" and compares the score variable to above 0 and below 10 using the && operator.

The expected output in the console should be "Mid-level skills: true".

Task 2: Using the logical || operator

Imagine you are coding a video game. Currently, you're about to code some snippets related to the game over condition.

You need to code a new variable named timeRemaining and set it to 0. You also need to code a new energy variable and set it to 10.

Next, you should write a piece of code that could be used to determine if the game is over, based on whether either the value of the timeRemaining variable is 0 or the value of the energy variable is 0.

Complete the task using the following steps:

1. Declare the variable timeRemaining, and assign the value of 0 to it.
2. Declare the variable energy, and assign the value of 10 to it.
3. Console log the following parameters: "Game over: ", and timeRemaining == 0 || energy == 0

Note that the expected output in the console should be: "Game over: true".

Try changing the timeRemaining variable to anything above 0 and then see how it affects the result.

Task 3: Using the modulus operator, %, to test if a given number is odd

You need to code a small program that takes a number and determines if it's an even number (like 2, 4, 6, 8, 10).

To achieve this task, you need to declare six variables, as follows:

1. The first variable, named num1, should be assigned a number value of 2.
2. The second variable, named num2, should be assigned a number value of 5.
3. The third variable, named test1, should be assigned the calculation of num1 % 2. **Note**: executing this code will return a number.
4. The fourth variable, named test2, should be assigned the calculation of num2 % 2. **Note**: executing this code will also return a number.
5. The fifth variable, named result1, should be assigned the result of comparing if the number stored in the test1 variable is not equal to 0, in other words, this: test1 == 0.
6. The sixth variable, named result2, should be assigned the result of comparing if the number stored in the test2 variable is not equal to 0, in other words, test2 == 0.

Run console log two times after you've set the variables:

1. The first console log should have the following code between parentheses: "Is", num1, "an even number?", result1

2. The second console log should have the following code between parentheses: "Is", num2, "an even number?", result2

Note: The output to the console should be as follows:

Is 2 an even number? true

Is 5 an even number? false

Task 4: Add numbers using the + operator

Console log the result of adding two numbers, 5 and 10, using the + operator.

Note: This task should be completed on a single line of code. The output in the console should be 15.

Task 5: Concatenate numbers and strings using the + operator

Code three variables:

1. The first variable should be a string with the following value: "Now in ". Name the variable now.
2. The second variable should be a number with the value: 3. Name the variable three.
3. The third variable should a string with the following value: "D!". Name the variable d.
4. Console log the following code: now + three + d.

Note: The expected output should be: "Now in 3D!".

Task 6: Use the += operator to accumulate values in a variable

Code a new variable and name it counter, assigning it to the value of 0.

On the next line, use the += operator to increase the value of counter by 5.

On the next line, use the += operator to increase the value of counter by 3.

On the fourth line, console log the value of the counter variable.

Note: The output value should be 8.