//JavaScript Assigment 3

// 1. W.A.P to find largest of 3 numbers using else if statement.

// 2. W.A.P to find smallest of 3 numbers using else if statement.

// 3. W.A.P to find greatest number among 2 number using if else statement.

// 4. W.A.P to display age and height of a person.

// 5. W.A.P to calculate arithmetic operations using switch statement.

// 6. W.A.P to check person is eligible to vote or not if else statement.

// 7. W.A.P to add two numbers using function in js.

// 8. W.A.P to find square of a number using function in js.

// 9. W.A.P to calculate simple interest using function in js.

// 10.W.A.P to check if a number is even using Arrow functions.

// Function to find the largest of three numbers

*function* findLargestNumber(*num1*, *num2*, *num3*) {

    if (*num1* >= *num2* && *num1* >= *num3*) {

        return *num1* + " is the largest number.";

    } else if (*num2* >= *num1* && *num2* >= *num3*) {

        return *num2* + " is the largest number.";

    } else {

        return *num3* + " is the largest number.";

    }

}

// Example usage

*var* number1 = 25;

*var* number2 = 40;

*var* number3 = 30;

*var* result = findLargestNumber(number1, number2, number3);

console.log(result);

**Output : 40 is the largest number.**

// Function to find the smallest of three numbers

*function* findSmallest(*num1*, *num2*, *num3*) {

    if (*num1* <= *num2* && *num1* <= *num3*) {

        return *num1* + " is the smallest number.";

    } else if (*num2* <= *num1* && *num2* <= *num3*) {

        return *num2* + " is the smallest number.";

    } else {

        return *num3* + " is the smallest number.";

    }

}

// Example usage

*var* num1 = 10;

*var* num2 = 5;

*var* num3 = 8;

*var* result = findSmallest(num1, num2, num3);

console.log(result);

**Output : 5 is the largest number.**

// Function to find the greatest number among two numbers

*function* findGreatestNumber(*num1*, *num2*) {

    if (*num1* > *num2*) {

        return *num1* + " is the greatest number.";

    } else if (*num2* > *num1*) {

        return *num2* + " is the greatest number.";

    } else {

        return "Both numbers are equal.";

    }

}

// Example usage

*var* number1 = 20;

*var* number2 = 30;

*var* result = findGreatestNumber(number1, number2);

console.log(result);

**Output : 30 is the largest number.**

// Prompt the user to enter age and height

*var* age = 23;

*var* height = 160;

// Display the entered values

console.log("Person's Information");

console.log("Age: " + age + " years");

console.log("Height: " + height + " cm");

**Output : Age : 23 years**

**Height: 160 cm**

**Or🡪**

<!DOCTYPE html>

<html lang="en">

<head>

  <meta charset="UTF-8">

  <meta name="viewport" content="width=device-width, initial-scale=1.0">

  <title>Age and Height Display</title>

</head>

<body>

<script>

  // Prompt the user to enter age and height

*var* age = prompt("Enter your age:");

*var* height = prompt("Enter your height (in cm):");

  // Display the entered values

  document.write("<h2>Person's Information</h2>");

  document.write("<p>Age: " + age + " years</p>");

  document.write("<p>Height: " + height + " cm</p>");

</script>

</body>

</html>

// Function to perform arithmetic operations

*function* calculate(*operator*, *num1*, *num2*) {

  switch (*operator*) {

    case "+":

      return *num1* + *num2*;

    case "-":

      return *num1* - *num2*;

    case "\*":

      return *num1* \* *num2*;

    case "/":

      if (*num2* !== 0) {

        return *num1* / *num2*;

      } else {

        return "Cannot divide by zero!";

      }

    default:

      return "Invalid operator";

  }

}

// Example inputs (you can replace these with your own values)

*const* operator = "+";

*const* num1 = 5;

*const* num2 = 3;

// Calculate the result

*const* result = calculate(operator, num1, num2);

// Display the result in the terminal

console.log(`Result of ${num1} ${operator} ${num2}: ${result}`);

**Output : Result of 5 + 3: 8**

// Function to check eligibility to vote

*function* checkEligibility(*age*) {

    if (*age* >= 18) {

        console.log("You are eligible to vote!");

    } else {

        console.log("You are not eligible to vote yet. Wait until you turn 18.");

    }

}

// Example usage

*var* personAge = 20 // You can replace this with any way of getting the age input

// Ensure that the input is a number

personAge = parseInt(personAge);

// Check eligibility

if (!isNaN(personAge)) {

    checkEligibility(personAge);

} else {

    console.log("Please enter a valid age.");

}

**Output : You are eligible to vote!**

// Function to add two numbers

*function* addNumbers(*num1*, *num2*) {

    return *num1* + *num2*;

}

// Taking input from the user (you can also use prompt() for a web-based implementation)

*let* number1 = 162;

*let* number2 = 453;

// Calling the function and storing the result in a variable

*let* sum = addNumbers(number1, number2);

// Displaying the result

console.log(`The sum of ${number1} and ${number2} is: ${sum}`);

**Output : The sum of 162 and 453 is: 615**

// Function to find the square of a number

*function* square(*number*) {

    return *number* \* *number*;

  }

  // Taking input from the user

*var* userInput = 8;

  // Converting the user input to a number

*var* number = parseFloat(userInput);

  // Checking if the input is a valid number

  if (!isNaN(number)) {

    // Calling the square function and displaying the result

*var* result = square(number);

    console.log("The square of " + number + " is: " + result);

  }

**Output : The square of 8 is: 64**

// Function to calculate simple interest

*function* calculateSimpleInterest(*principal*, *rate*, *time*) {

    // Simple Interest formula: SI = (P \* R \* T) / 100

*const* simpleInterest = (*principal* \* *rate* \* *time*) / 100;

    return simpleInterest;

}

// Example usage

*const* principalAmount = 1000;  // Principal amount

*const* interestRate = 5;      // Annual interest rate (in percentage)

*const* timePeriod = 2;         // Time period (in years)

// Call the function and store the result in a variable

*const* result = calculateSimpleInterest(principalAmount, interestRate, timePeriod);

// Display the result

console.log(`Simple Interest: ${result}`);

**Output : Simple Interest: 100**

// Arrow function to check if a number is even

*const* isEven = (*number*) *=>* *number* % 2 === 0;

// Example usage

*const* numberToCheck = 10;

if (isEven(numberToCheck)) {

  console.log(`${numberToCheck} is even.`);

} else {

  console.log(`${numberToCheck} is odd.`);

}

**Output : 10 is even.**