Javascript

Sheet 3

1. *Celsius to Fahrenheit Conversion.* Write a JavaScript program that converts a temperature from Celsius to Fahrenheit. The formula to convert Celsius to Fahrenheit is: $F = (C \times 1.8) + 32$.

2. *Calculate the Average.* Write a program that calculates the average of a list of numbers.

3. *Determine the Largest Number.* Write a program that finds the largest number in a list of numbers.

4. *Check if a Number is Positive, Negative, or Zero.* Write a program that checks if a number is positive, negative, or zero.

5. *Calculate the Area of a Circle.* Write a program that calculates the area of a circle given its radius. The formula to calculate the area of a circle is: $A = \pi r^2$.

6. *Determine the Smallest Number.* Write a program that finds the smallest number in a list of numbers.

7. *Check if a Year is a Leap Year.* Write a program that checks if a year is a leap year. A leap year is divisible by 4, but not by 100, unless it is also divisible by 400.

8. *Convert Minutes to Hours and Minutes.* Write a JavaScript program that converts a duration from minutes to hours and minutes. For example, if the duration is 123 minutes, the program should output "2 hours, 3 minutes".

9. *Determine the Longest Word.* Write a program that finds the longest word in a sentence.

10. *Check if a Year is a Common Year.* Write a program that checks if a year is a common year. A common year is not a leap year.

11. *Calculate the Factorial.* Write a program that calculates the factorial of a number.

12. *Check if a Number is a Prime Number.* Write a program that checks if a number is a prime number.

13. *Count the Number of Vowels in a String.* Write a program that counts the number of vowels in a string.

14. *Check if a Number is a Perfect Number.* Write a program that checks if a number is a perfect number. A perfect number is a positive integer that is equal to the sum of its proper divisors (excluding itself).

15. *Calculate the GCD.* Write a program that calculates the greatest common divisor (GCD) of two numbers.

16. *Reverse a String.* Write a program that reverses a string.