Questions On While Loops - C Programming

Basic Loop Concepts

1. Write a program to print the numbers from 1 to 10 using a `while` loop.
2. Print the even numbers from 2 to 20 using a `while` loop.
3. Write a program to print the odd numbers from 1 to 20 using a `while` loop.
4. Write a program to print all integers between 10 and 1 in reverse order using a `while` loop.
5. Write a program to print the numbers 1 to 100, but only print those that are divisible by 5.

Sum and Average Calculations

6. Write a program that computes the sum of integers from 1 to N, where N is provided by the user.
7. Write a program to compute the sum of all even numbers between 1 and 100.
8. Write a program to compute the sum of digits of a given number.
9. Write a program to calculate the average of N numbers entered by the user.
10. Write a program that sums all the multiples of 7 between 1 and 500.

Factorials and Mathematical Problems

11. Write a program to compute the factorial of a given number using a `while` loop.
12. Write a program to find the product of all odd numbers from 1 to N.
13. Write a program to check whether a number is a prime number.
14. Write a program to print the first N Fibonacci numbers using a `while` loop.
15. Write a program to calculate the power of a number (x^y) using a `while` loop.