

Homework – while loops

1. What is the minimum number of times that the body of a while statement can be executed?

zero if the condition is initially false

2. What is the maximum number of times that the body of a while statement can be executed?

infinite if the condition is always true.

3. **Count1.java** Write a while loop that outputs numbers from 0 to 50 by 5.
4. **Count2.java** Write a while loop that outputs numbers from 50 to 100 by 1.
5. **Count3.java** Write a while loop that outputs numbers from a to b where a and b are entered by the user.
6. **Guess.java** Write a while loop that allows the user to guess a number between 1 and 20 until he gets it right or inputs a number out of range. Use a constant to define the correct number. Output a message indicated if the correct number is guessed or an invalid number is inputted.
7. **Age.java** Write a program that asks the user to guess your age. They must continue guessing until they get it correct.
8. **PercentPassing.java** Write a program that prompts the user for a set of scores and then calculates the percentage of scores above 70. The user will enter a negative score to terminate.
9. **LeastTwoPower.java** Write a program that reads a positive integer and then finds the smallest power of two that is greater than or equal to the number that are read. For example, if the program reads the value 25, it should note that $32 = 2^5$ is the smallest power of two greater than or equal to 25.