

While Loops Quiz

****Instructions:**** Answer all questions. For coding problems, write your answers clearly.

Part 1: Multiple Choice (10 questions)

1. What does a while loop do?
 - a. Repeats code a specific number of times
 - b. Repeats code until a condition is false
 - c. Executes code only once
 - d. None of the above
2. What will happen if the condition in a while loop never becomes false?
 - a. The loop will stop automatically.
 - b. The program will crash immediately.
 - c. The loop will run indefinitely.
 - d. An error will occur before running.
3. What does this code output?

```
x = 0
while x < 3:
    print(x)
    x += 1
```

 - a. 0 1 2 3
 - b. 0 1 2
 - c. 1 2 3
 - d. 0 0 0
4. Which of these while loop conditions will stop immediately?
 - a. while 5 > 3:
 - b. while False:
 - c. while True:
 - d. while 1 == 1:
5. What does the following code do?

```
while True:
    print("Hello")
```

 - a. Prints "Hello" once.
 - b. Causes a syntax error.
 - c. Runs indefinitely.
 - d. Runs but prints nothing.
6. What is the value of x after running this code?

```
x = 0
while x < 5:
    x += 1
```

 - a. 4
 - b. 5
 - c. 6
 - d. 0

Part 2: Reading and Writing While Loop Programs (10 questions)

7. Read the code below and state the output:

Code	Output
<pre>count = 0 while count < 30: print(count+5) count += 7</pre>	

8. Fix the error in this code:

Code	Identify the error
<pre>x = 10 while x > 0 print(x) x -= 1</pre>	

9. Predict the output of this code:

Code	Output
<pre>x = 1 while x < 10: x *= 2 print(x)</pre>	

10. Write a while loop to print all multiples of 9 less than 100.

[illegible]