You have 15 minutes to complete this quiz. Please put away your books, notes, and all electronic devices

1. Write down the output of this program.

```
n = 10
m = 12
while (m >= n) or True:
    if (m + n) % 2 == 0:
        print("Line 1", n, m)
        m = m - 1
    else:
        print("Line 2", n, m)
        n = n + 1
        m = m - 1

    if abs(m-n) > 6:
        break
```

2. A positive integer n is called an *abundant number* if its factors, excluding itself, add up to a quantity greater than n. For example, 12 is an abundant number because its factors excluding itself are 1, 2, 3, 4, and 6 and $1+2+3+4+6 = 16$. I wrote a program that reads a positive integer i and prints the message "Abundant" if i is abundant. Then I introduced two errors into the program. Identify the errors clearly (e.g., by circling each line with an error) and classify each error as either a syntax error, run-time error, or semantic error. Finally, suggest minor modifications to the program to fix these errors.

```
i = input()

factorSum = 0
factor = i

while factor > 0:
    if i % factor == 0:
        factorSum = factorSum + factor
    factor = factor - 1

if factorSum > i:
    print("Abundant")
```