Quiz 1

This program loads hourly energy consumption data from a CSV file into Python. The data is stored in a suitable structure for analysis.

It calculates the total and average energy consumption. It also finds the maximum and minimum consumption values along with their corresponding hours.

```python
import csv

hours = []
consumption = []

with open("hourly_energy.csv", "r") as file:
    reader = csv.reader(file)
    next(reader)
    for row in reader:
        hours.append(int(row[0]))
        consumption.append(int(row[1]))

total = sum(consumption)
average = total / len(consumption)

max_value = max(consumption)
min_value = min(consumption)

max_hour = hours[consumption.index(max_value)]
min_hour = hours[consumption.index(min_value)]

print("Total Consumption:", total)
print("Average Consumption:", average)
print("Maximum Consumption:", max_value, "at hour", max_hour)
print("Minimum Consumption:", min_value, "at hour", min_hour)
```

Quiz 2

This program uses the chain function from the itertools module to combine three lists into a single sequence.

Each value from the combined sequence is taken one by one, squared, and then printed.

```python
from itertools import chain
first = [7, 6, 1]
second = [4, 1]
third = [8, 0, 6]

for value in chain(first, second, third):
    print(value**2)
```

```
49
36
1
16
1
64
0
36
```

Quiz 3

1. Determine the exact output of the program and explain why each line is executed or skipped

```python
In [3]: try:
    x = int("2")
except ValueError:
    print("Error")
else:
    print("No error occurred")
finally:
    print("Always executed")
```

```
No error occurred
Always executed
```