Pseudocode

Correction

Exercise 1 ..... **2**
Exercise 2 ..... **2**
Exercise 3 ..... **2**
Exercise 4 ..... **2**
Exercise 5 ..... **3**
Exercise 6 ..... **3**
Exercise 7 ..... **4**
Exercise 8 ..... **4**
Exercise 9 ..... **4**
Exercise 10 ..... **5**

Exercise 1

```
SET total TO 0
SET count TO 0
FOR each grade IN grades DO
        ADD grade TO total
        ADD 1 TO count
END FOR

SET average TO total / count
DISPLAY average
```

Exercise 2

```
SET maxNumber TO list[0]
FOR each number IN list DO
        IF number > maxNumber THEN
                SET maxNumber TO number
        END IF
END FOR
DISPLAY maxNumber
```

Exercise 3

```
SET countMap TO empty map AS integer keys and integer values
FOR each number IN array DO
        IF number IN countMap THEN
                INCREMENT countMap[number]
        ELSE
                SET countMap[number] TO 1
        END IF
END FOR

SET arrayLength TO length of array
FOR each number IN countMap DO
        IF countMap[number] > arrayLength / 2 THEN
                DISPLAY number
                BREAK
        END IF
END FOR
```

Exercise 4

```
SET cleanedString TO remove spaces/punctuation & convert to lower case from inputString
SET leftIndex TO index of the first character of cleanedString
SET rightIndex TO index of the last character of cleanedString

WHILE leftIndex < rightIndex DO
        IF cleanedString[leftIndex] NOT EQUAL TO cleanedString[rightIndex] THEN
                SET palindrome TO False
                EXIT
        END IF
        INCREMENT leftIndex
        DECREMENT rightIndex
END WHILE

IF palindrom THEN
        DISPLAY “Is a palindrome”
ELSE
        DISPLAY “Not a palindrome”
```

Exercise 5

```python
sum_ = 0
for i in range(1, 101):
    if i % 2 == 0:
        sum_ += i
print(sum_)
```

Exercise 6

```python
def reverseString(inputString):
    reversedString = ""
    for character in reversed(inputString):
        reversedString += character
    return reversedString

myString = "Hello World"
result = reverseString(myString)
print(result)
```

Exercise 7

```python
def isPrime(number):
    if number < 2:
        return False
    for i in range(2, number):
        if number % i == 0:
            return False
    return True

num = 17
primeStatus = isPrime(num)
print(primeStatus)
```

Exercise 8

```
SET a TO 0
SET b TO 1

WHILE a is lower than 10 DO
        DISPLAY a
        SET temp TO a
        SET a TO b
        SET b TO temp + b
END FOR
```

Exercise 9

```
SET string TO "hello world"
SET char TO 'l'
SET count TO 0

FOR each c IN string DO
        IF c EQUALS char THEN
                INCREMENT count
        END IF
END FOR

DISPLAY count
```

Exercise 10

```
SET keys TO ['apple', 'banana', 'orange']
SET values TO [5, 3, 2]
SET fruit_dict TO empty dictionary AS string keys and integer values

FOR i FROM 0 TO length of keys - 1 DO
        SET fruit_dict at keys[i] TO values[i]
END FOR

DISPLAY fruit_dict
```