Exercises

1) Write a function to find the sum of a list of numbers.
2) Write a function to find the average of a list of numbers.
3) Write a function to check if a number is prime.
4) Write a function to find all prime numbers in a range.
5) Write a function to generate a random number between two given numbers.
6) Write a function to count the number of vowels in a string.
7) Write a function to count the number of consonants in a string.
8) Write a function to remove all vowels from a string.
9) Write a function to remove all consonants from a string.
10) Write a function to check if a string is a pangram.

Exercises and solution

1) Write a function to find the sum of a list of numbers.

```
def sum_list(lst):
    total = 0
    for num in lst:
        total += num
    return total
```

2) Write a function to find the average of a list of numbers.

```
def avg_list(lst):
    return sum(lst) / len(lst)
```

3) Write a function to check if a number is prime.

```
def is_prime(num):
    if num < 2:
        return False
    for i in range(2, int(num ** 0.5) + 1):
        if num % i == 0:
            return False
    return True
```

4) Write a function to find all prime numbers in a range.

```
def find_primes(start, end):
    primes = []
    for num in range(start, end + 1):
        if is_prime(num):
            primes.append(num)
```

```
    return primes
```

5) Write a function to generate a random number between two given numbers.

```
import random

def random_num(start, end):
    return random.randint(start, end)
```

6) Write a function to count the number of vowels in a string.

```
def count_vowels(s):
    vowels = "aeiou"
    count = 0
    for char in s:
        if char.lower() in vowels:
            count += 1
    return count
```

7) Write a function to count the number of consonants in a string.

```
def count_consonants(s):
    vowels = "aeiou"
    count = 0
    for char in s:
        if char.isalpha() and char.lower() not in vowels:
            count += 1
    return count
```

8) Write a function to remove all vowels from a string.

```
def remove_vowels(s):
    vowels = "aeiouAEIOU"
    return "".join([char for char in s if char not in vowels])
```

9) Write a function to remove all consonants from a string.

```
def remove_consonants(s):
    vowels = "aeiouAEIOU"
    return "".join([char for char in s if char not in vowels and
char.isalpha()])
```

10) Write a function to check if a string is a pangram.

```
def is_pangram(s):
    alphabet = "abcdefghijklmnopqrstuvwxyz"
    for char in alphabet:
        if char not in s.lower():
            return False
    return True
```