1. Perkovic 5.28

5.28 Write function `geometric()` that takes a list of integers as input and returns True if the integers in the list form a geometric sequence. A sequence $a_0, a_1, a_2, a_3, a_4, \ldots, a_k$ is a geometric sequence if the ratios $a_1/a_0, a_2/a_1, a_3/a_2, a_4/a_3, \ldots, a_k/a_{k-1}$ are all equal.

```python
>>> geometric([2, 4, 8, 16, 32, 64, 128, 256])
True
>>> geometric([2, 4, 6, 8])
False
```

2. Perkovic 4.12

4.12 Start by running, in the interactive shell, this assignment statement:

```python
>>> s = 'abcdefgijklmnopqrstuvwxyz'
```

Now write expressions using string `s` and the indexing operator that evaluate to 'bcd', 'abc', 'defghijklmnopqrstuvwxyz', 'vxy', and 'wxyz'.

3. Perkovic 4.15

4.15 For each of the below string values of s, write the expression involving s and the string methods split() that evaluates to list:

```
['10', '20', '30', '40', '50', '60']
```

(a) s = '10 20 30 40 50 60'
(b) s = '10,20,30,40,50,60'
(c) s = '10&20&30&40&50&60'
(d) s = '10 - 20 - 30 - 40 - 50 - 60'

4. Perkovic 4.23

4.23 Write a function average() that takes no input but requests that the user enter a sentence. Your function should return the average length of a word in the sentence.

```python
>>> average()
Enter a sentence: A sample sentence
5.0
```