During this exam you will be asked to solve several problems by creating a solution containing only lines that specify an assignment, selection, or iteration. You can express your solution in English (like the examples shown below) or code if you already know a programming language.

Each problem that you’re asked to solve will always specify what you receive, and what you’re expected to return. Your solution should also always start with a receive line and end with return line.

**Definition of Assignment:**
An Assignment is where a value is stored for later use. For example:

```plaintext
set X to be 5
```

An assingment line may also contain a computation. For Example:

```plaintext
set Y to be what X is plus 3 (say X equals 5, then Y in this example becomes 8)
```

**Definition of Selection:**
Selection allows you to do something only if a condition is true.

```plaintext
if X is greater than 1000 then:
    set X to be half of what it is now (divide X by 2)
```

Indent the part(s) that should happen when the condition is true.

```plaintext
if X is greater than 1000 then:
    set X to be half of what it is now (divide X by 2)
    add 1 to the value of Y
```

Optionally also specify what should happen when the condition is false.

```plaintext
if X is greater than 1000 then:
    set X to be half of what it is now (divide X by 2)
    add 1 to the value of Y
else:
    add 1 to the value of X
```
Definition of Iteration
Iteration lets you specify things that should happen multiple times.

receive a list of numbers
set sum to be 0
for each number in the list:  
   add the number to the sum  
Indend the part(s) that should happen multiple times.
set sum to be 0
set count to be 0
for each number in the list:
   add one to count  
   if the number is greater than 10:  
      add the number to the sum  
Example Problem and Solution
You receive a list of numbers and need to return the average value of the numbers that are above 10. For example, if you receive [4, 16, 25, 7, 13] you should return 18.

Example Solution:
This solution specifies if a line is an assignment, selection or iteration. This is for demonstrative purposes only, you do not need to do so for your solutions.

receive a list of numbers  
set sum to be 0  
set count to be 0  
for each number in the list:
   if the number is greater than 10:  
      add the number to the sum  
      add one to count  
set average to be sum divided by count  
return average