* Enter a number (n1) on the console.
* Enter a number (n2) on the console.
* Compare the two number:
  + If n2 is greater than n1 print the sum of the two numbers.
  + Otherwise print *-1*.

1. What will be the **result** for these outputs?

|  |  |
| --- | --- |
| **Input** | **Output** |
| > 3  > 8 | 8 (8 = 3 + 5) |
| > 5  > 5 | -1 |
| > 10  > 8 | 10(10=8+2) |
| > 0  > 5 | 5(5=5+0) |
| > 1  > 3 | 4(4=1+3) |

1. **Analyze the symbols** you need to solve this problem.

|  |  |  |
| --- | --- | --- |
| Element | Do you need it? | For what? |
| Action |  |  |
| Decision |  |  |
| Repeat |  |  |
| Input / Output |  |  |

1. From the following code, draw the corresponding flowchart.

n1 = int(input())

n2 = int(input())

sum = -1

if n2 > n1:

sum = n1 + n2

print(sum)

1. Solve this poll of question on hackerrank:

<https://www.hackerrank.com/work/tests/1404754/questions>

* Check if string contains only “A”.

1. What will be the **result** for these outputs?

|  |  |
| --- | --- |
| **Input** | **Output** |
| BBBB | False |
| AA | True |
| BBBBA | False |
| AABC | False |
| AAAAAAA | True |
| AAAD | False |

1. Fill up the gap of the following flowchart.



1. Implement it in Python.
2. Execute it and fill up the following result table.

|  |  |
| --- | --- |
| **Input** | **Output** |
| BBBAB |  |
| AAAAAA |  |
| ABABBBA |  |
| AABCA |  |

* Enter a number again and again until there is no “end” string.
* Print the even number in the console.

1. What will be the **result** for these outputs?

|  |  |
| --- | --- |
| **Input** | **Output** |
| > 5  > 3  > 2  > 10  > end | 2:10 |
| > 5  > 4  > 8  > 16  > end | 4:8:16 |
| > 2  > 6  > 4  > 7  > end | 2:6:4 |
| > 5  > 3  > 7  > 1  > end | 0 |
| > 1  > 2  > 3  > end | 2 |

1. Create a flowchart by using the condition (while) block.
2. Implement it in Python.
3. Is it possible to adapt your solution by using the repeat block? If so, do it.

* Input text in the console
* Print index of the LAST pattern “KK” (first K letter)
* If no “KK”, write -1

1. What will be the **result** for these outputs?

|  |  |
| --- | --- |
| **Input** | **Output** |
| DDKDDDKE | -1 |
| DDKKDDKKD | 6 |
| K | Error: string index out of range |
| AAKAKK | Error: string index out of range |
| XXKKXXKX | 2 |
| KKAAK | Error: string index out of range |

1. What is wrong with this code?

text = input()

result = -1

for index in range(len(text)):

letter = text[index]

if letter == "K" and text[index + 1] == "K":

result = index

print(result)

1. To find the bug, test this code and check if the output is correct.

|  |  |
| --- | --- |
| INPUT | OUTPUT |
| KK | Error: string index out of range |
| KKK | Error: string index out of range |
| AAKKAK | Error: string index out of range |

1. Write the correct code.

* Enter 2 numbers using a string, as follows: “number1; number2”.
* Number1 and number2 shall be composed of 2 digits (example “45”)
* Between number1 and number2, the character “;” shall be entered.
* If format is good
  + Display the sum of these 2 numbers.
  + Otherwise display: “WRONG FORMAT”

1. What will be the **result** for these outputs?

|  |  |
| --- | --- |
| **Input** | **Output** |
| 12;13 | 25 |
| Ronan | WRONG FORMAT |
| 12;1 | 13 |
| 10;20 | 30 |
| 12/14 | 26 |
| 15;16;18 | 49 |

1. Do you need extra variables?
2. What is the information we need to keep?
3. Solve this problem and try your code with the previous inputs.