# A test of "fundamentals of programming" 19 March 201 7 evening

## Task 6 The check digit.

Write a program that checks **all the possible combinations of paired numbers**. **The first number**of the combination **is growing from 1 to N**, and **the second is a oxidation of M by 1**. **The first number multiplied by 2** plus **second multiplied by 3** **are added to the total**. Is a **check digit**. If **the amount becomes equal to or greater than the control number**, **the program ends**. **Example:**

When **N = 3**, **M = 4**and **the control number** **= 115 kombinacite are 12**:

1 4 | 1 3 | 1 2 | 1 1 | 2 4 | 2 3 | 2 2 | 2 1 | 3 4 | **3 3**| 3 2 | 3 1

**For each move**(combination) **is added to the total** score on the formula:

        **1st move**– 1\*2 + 4\*3 = **14**

        **2nd course**– 14 + 1\*2 + 3\*3 = **25**

        **3rd course**– 25 + 1\*2 + 2\*3 = **32**

        ....

        **9 you move**= **10** **2**

        **10 you move**= 10 2 + 3\*2 + 3\*3 = 10 2 + 15 = **1** **17**

The amount is equal to the control number and izipsva message that shows the number of moves and amount, and then the program ends . If **the amount till the end remain less than the control number** is displayed **the number of all the moves (combos)**.

|  |  |
| --- | --- |
| **Login** | **Exit** |
| 2  2  123 | 4 moves |
| **Explanations** | |
| **kombinacite are 4**:  1 2 | 1 1 | 2 2 | 2 1  **1st move**– 1\*2 + 2\*3 = **8**  **2nd course**– **8** + 1\*2 + 1\*3 = **13**  **3rd course**– **13** + 2\*2 + 2\*3 = **23**  **4th course**– **32** + 2\*2 + 1\*3 = **39**  **39 < 123  a total of 4 course** | |

### Login

The input is read from the console and consists of **two rows**:

        **The first row**– **N**– **an integer** in the range **[1... 100 ]**

        **The second line**– **M**– **an integer** in the range **[1 .. 100. ]**

        **Third row – check digit – integer**in the interval **[1...1000000]**

### Exit

The console must be printed**, according to the result**:

        **2 rows**If **the amount is equal to or above the control number** **:**

o **"{Move} moves"**

o **"Score: {amount} = > {reference number} "**

        If **the amount is the lesser of the control number**:

o **"{Move} moves"**

### Sample input and output

|  |  |  |
| --- | --- | --- |
| **Login** | **Exit** | **Explanations** |
| 3  4  1 15 | 10 moves  Score: 117 >= 11 5 | **kombinacite are 12**: 1 4 | 1 3 | 1 2 | 1 1 | 2 4 | 2 3 | 2 2 | 2 1 | 3 4 | **3 3**| 3 2 | 3 1  **1st move**– 1\*2 + 4\*3 = **14** **| 2nd course**– 14 + 1\*2 + 3\*3 = **25** **| 3rd course**– 25 + 1\*2 + 2\*3 = **33**.... | **.... 9step**= **102; 10step**= 102 + 3\* 2 + 3\* 3 = 102 + 15 = **117**  **117 >= 115 program ends on the tenth move** |