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Þátttaka í kennslustund, viku 2, kennslustund B

Umræða í krossaspurningum

1. Svar A = String
2. Svar B = bool is not a sequence object
3. Svar A = a to b-1
4. Svar D = -1 0 1
5. Svar B = 9 → range(1,10) er [1, 2, 3, 4, 5, 6, 7, 8, 9] - stærð range - 1
6. Svar C = range(0, 8, 2) → 0, 2, 4, 6 = 4x stök │ a) inniheldur 5 og b) inniheldur 7
7. Svar B = 8 6 4 2
8. Svöruðum B = 2, 1, 0, -1, -2, sem var **ekki** rétt -> rétt svar er er C = none of the above, af því að range(a,b), default hækkar það um +1.
9. Svar B = 8
10. Svar C = 5 a's and 15 b's

Forritunar verkefni

Problem B Countdown

Hver útskýrði: Ylfa
Hver forritaði: Bjarki
Stutt skýring á verkefninu:
Við eigum að búa til kóða þar sem hægt er að stimpla inn tölu sem á svo að minnka alltaf um 1 og endar í 1.
Write a program that, given an integer *n* as input, prints *n*, then *n-1*, and so forth, until finally printing 1, at which the program ends.
Útskýring:
Byrjaði á að gera n = int(input()) - til þess að hægt sé að stimpla inn hvaða tölu sem er.
Svo gerði ég for i in range(n, 0, -1): - setti 0 því enda talann á að vera 1, og setti -1 í endann vegna þess að talan n á að minnka um 1 þar til hún endar í 1.

Kóði:

```
n = int(input())


for i in range(n, 0, -1):
    print(i)
```

Hvaða vandamál komu upp:
Engin vandamál komu upp
Lokakóði:

```
n = int(input())


for i in range (n, 0, -1):
   print(i)
```

Problem C Fancy Multiplication

Hver útskýrði: Donna
Hver forritaði: Ylfa
Stutt skýring á verkefninu:

Write a program that implements multiplication by using addition and a loop.
Let us assume that there is no multiplication operator.

Útskýring:
Read the input:
The program starts by reading two string inputs *x* and *y*.
First_number = input()
Second_number = input()

These two string inputs are then converted to ints.
X = int(first_number)
Y = int(second_number)

Initialize:
Create a variable called result as a temp to store the result of the multiplication.
Result = 0
Use a for Loop to perform the multiplication:
The loop runs y times (where y is the second number)
On each iteration of the loop the value x is added to the result.
So if y = 3, x is added to the result three times. This is the same as x * y
Output of the result:
After the loop completes, the result variable contains the product of x and y.
We then print the result to the console.

Hvaða vandamál komu upp ?
Donna: My first solution was to prompt an int input from the user instead of string the convert it to ints, and then using a for loop. This led to my output to be for example
X = 4, y = 3 → print(result)
Output:

3
4
3
6
9
12
After I converted it from string to ints then the for loop the output was correct.
This was one way of dealing with the code, but after further talks with Ylfa we found out that you don't need to convert the inputs from string to int.
Just initialize the program to read the inputs as ints instead of string.

Lokakóði:

```python
first_number = int(input())
second_number = int(input())


result = 0


for i in range(second_number):
    result += first_number


print(result)
```

Problem D Square, but Not the Math Kind

Hver útskýrði: Bjarki
Hver forritaði: Donna
Stutt skýring á verkefninu:

Útskýring:

We are supposed to write a program, given an integer d, prints square made of asterisks (*).

The square has space separated * symbols on its edges and is filled with spaces on the inside.

The input consists of one line containing the integer d, where 1 <= d <= 100

The output consists of the d lines needed to form the square. Your output must be exactly correct, with no additional whitespace. In particular, there should be no spaces at the end of each line.

Proposal to the solution:

We have one input which is an integer d, which retrieves the size of the square.

I propose we you do a for loop to solve this problem.
When i is 0 (first row or d-1 (last row) print d. We repeat the string "* " d times.

For any other rows (middle rows, i is not 0 and not d-1) it prints an asterisk, followed by d-2 spaces (multiplied by two for correct spacing), and another asterisk at the end. This ensures the middle of the square is hollow.

Else code:
It starts with "" *and the prints d (e.g. 5) - 2 because there are two spaces to fill up the spaces of "* " and ends with " *"*

Kóði:

```
d = int(input())

for i in range(d):
    if i == 0 or i == d - 1:
            print("* " * d)
    else:
        print("*" + "  " * (d - 2) + " *")
```

Hvaða vandamál komu upp ?

I used range(100) as defined in the constraints instead of the input d. After correcting the code kattis did not accept the code. Probably because the program is printing a "* " on d-1 but should only print "*" for d-1.

Lokakóði:

```
d = int(input())


for i in range(d):
    if i == 0 or i == d - 1:
            print("* " * (d - 1) + "*")
    else:
        print("*" + "  " * (d - 2) + " *")
```