III homeworks.md

## Homework 1.

1.1. Write a script (or function) that takes as an input two numbers width and height and prints a rectangle with specified size.

## Examples:

• width=5 and height=4 should result in terminal output:

```
#####
# #
# #
# #
#####
```

• width=7 and height=2 should result in terminal output:

```
######
######
```

• width=1 and height=1 should result in terminal output:

```
#
```

- **1.2.** Sum all perfect squares (numbers that are equal to the square of other number -1, 4, ..., 9, 16, 25, 36, 49, ..., 9801, 10000) in range between 0 and 10000.
- **1.3.** Write a script for setting an alarm, which ask users whether they are employed (yes / no) and whether they are currently on vacation (yes / no). User should answer typing either Y for yes or N for no. If user specify incorrect answer (anything that is not Y or N) program should warn user about incorrect answer and ask again.

The script output True if user is employed and not on vacation (because these are the circumstances under which you need to set an alarm). It should output False otherwise. Examples:

## Examples:

· setting an alarm

```
> Are you employed? (Y/N):
> y
> Incorrect answer.
> Are you employed? (Y/N):
> Y
> Are you on vacation (Y/N):
> N
> True
```

· not setting an alarm

```
> Are you employed? (Y/N):
> N
> Are you on vacation (Y/N):
> N
> False
```