

1 Description

Write a series of Python programs to draw figures on the console by using only asterisks (*) and spaces.

Requirements & conditions

- The figure you draw should be first accumulated into a string, and only after the string has been formed it should be printed. This means that you only have a **single print statement** at your disposal.
- The parameters of each figure should be read in the form of user input. This means that any parameters you deem useful, such as height, length, etc. must not be a constant.
- You are not allowed to use the *-operator on strings and ints. So for example "*" * 3 is not allowed
- You can score 1 point for the squares and triangles. 1 Point for the circle and 1 point for the smiley face.

A full square

```
****
****
****
****
```

A hollow square

```
****
*  *
*  *
****
```

A full rectangle triangle

```
  *
 **
 ***
 ****
 *****
```

A full isosceles triangle

```
      *
     ***
    *****
```

A full circle ¹

¹Remember that the points inside a circle are all within a given distance from the center. The distance from a point (x_1, y_1) to the center (x_2, y_2) is computed with the well-known formula of Pythagoras: $\text{distance} = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$

A rather ugly smiley face

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