Test Assignment

Hello!!

Your mission is to create a small tool that a circle of blocks create a circle (or ellipse if you are a genius) of blocks, take a look at the screenshot attached for reference.

How it is supposed to work?

We open it from the editor (Unity) menu, then in the window, we set parameters and upon clicking "Generate" the blocks are added to the scene. Preferably in a game object of our choice.

This is the full list of requirements:

[Mandatory] Option to create a circle of blocks with the given radius (center of the circle is in position (0,0,0)

[Optional] Replace circle with an ellipse, and radius with a and b **(this is a hard one!)**

[Optional] Add possibility to choose the material from a drop-down list (or a picker) for blocks

[Optional] Similar to the above but a color picker.

[Optional] Add ability to set block size (universally for all dimension) from a range picker limited let's say to <1, 2>

[Optional] Add possibility to store chosen parameters in a scriptable object and generate the circle (ellipse) from such a scriptable object.

Blocks should never overlap (you can test that by adding them a collider and seeing if they "explode" on play).

This assignment is not paid. Generally, the more you do the better, however truly mandatory is only the first task. You can add a new one if you think it's necessary or modify the existing. As long as the task proves you are a capable programmer I am ok with it.

General rules: Code should be clean, readable, and as optimal as possible. All tricks on board.
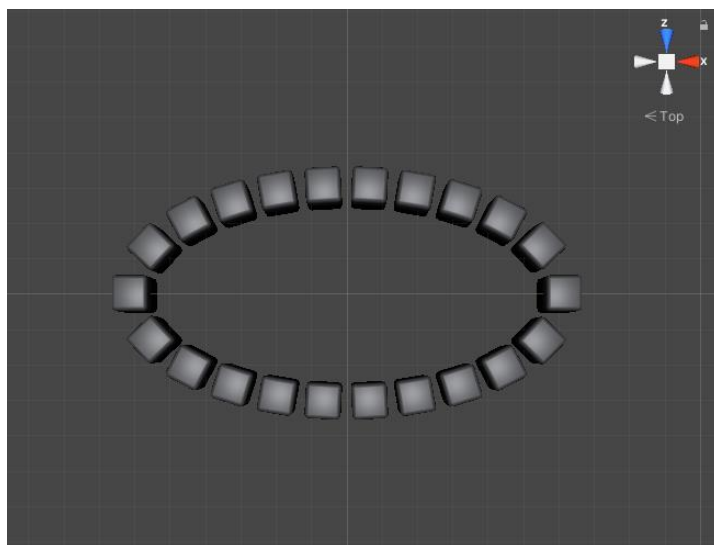
On the left, you have the effect of the tool. As you can see it creates as many blocks as possible and the space left is evenly distributed between them.

Have fun!