TinkerCad Codeblocks !
Screen Layout

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The 'Count with' block helps you do repeating tasks. In this case to spin in a circle.

```
Count with i from 0 to frame by 1
```

Do:
We have added the 'frame' variable into the 'to' field. This will count from 0 to whatever number is input in the 'frame' C.

Note: the 'Count with' block has a new variable called 'i'. This number updates by 1 as we count.

Add
We have used a Torus Shape, but any Shape would work. We have also changed the size, number of sides and steps.

```
Add Radius 60 Sides 6 Tube 2 Steps 6
```

```
Rotate around Axis y by Degrees from Pivot
```

Use the 'Rotate' block to tilt the Torus at an angle. In this case 50 degrees.

```
Move X: -20 Y: 0 Z: 46.5
```

Now, we use the 'Move' block to offset the Torus and move it to the Workplane. The 'X' input makes the basket wide.

```
Rotate around Axis z by frameRot Degrees from Pivot X: 0 Y: 0 Z: 0
```

After the 'Count with' block finishes counting, it will move to the next block below it.

```
Add Radius 20 Wall Thickness 14.5 H 3 Sides 24 edge 1 Edge Steps 1
```

Use the Tube Shape to add a base for the basket, making it easier to print.

```
Create Group
```

Now, use 'Create Group' to combine all the Shapes into a single basket design and change the color.
Shapes Menu
Control Menu

Control

Repeat 1 Times

Count with j from 1 to 10

Do

Pause
Math Menu

Math

Create Variable Item \[0\]

Set Item \[1\] to \[1\]

Change Item \[1\] by \[1\]

X: \[0\], Y: \[0\], Z: \[0\]

Axis x \[\]

0 + \[0\]

Sin \[0\]

Random between \[0\] and \[10\]

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Data Menu

Data

- frame
- frameRot
- i
Top-of-Screen Controls

Speed

Export   Share
Hole-in-a-Block Example

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<th>object0</th>
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Stacking Pyramid Example
Stacking Pyramid Example

Create New Object: object0

Create Variable: Xlength: 50
Create Variable: Ylength: 50
Create Variable: Zlength: 10
Create Variable: Zwhere: Zlength / 2

Length of the sides of the block
How high up to put the block
How to do arithmetic

0 0
Stacking Pyramid Example

Do this 8 times
Stacking Pyramid Example

Draw a box of this size and lift it up
Stacking Pyramid Example

Change the key variables

Change Zwhere by 8
Change Xlength by -5
Change Ylength by -5
Change Zlength by 0

Create Group
Stacking Pyramid Example
Stacking Pyramid Example – Things to Try

1. Try different values for \textit{Xlength}, \textit{Ylength}, and \textit{Zlength}

2. Try different values to change \textit{Xlength}, \textit{Ylength}, and \textit{Zlength} by

3. Try different values for the number of steps to repeat

4. In the Add Box puzzle piece, try changing the \textit{edge} number to 3. What difference does this make?

5. Add a \textbf{Rotate} before the \textbf{Move}

6. Instead of using a fixed number, use a random number instead

7. How could you subtract a hole down the middle of the pyramid?