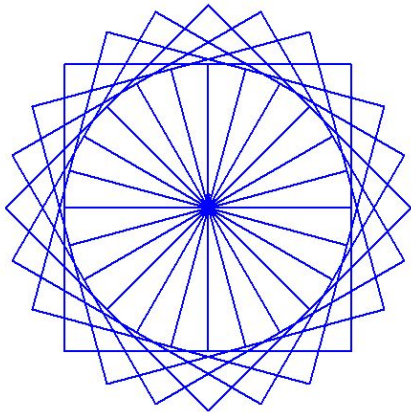




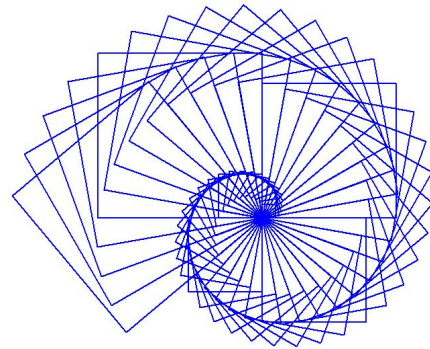
## ***Turtle exercises***

Using turtle to draw the following shapes:

1.



2.





## *Serious exercises*

**Exercise 1:** Write a program to standardise user's name:

```
Your full name: HUynh tuan aNh
Updated: Huynh Tuan Anh
```

**Exercise 2:** Write a program to ask user to enter their balance then standardise it:

```
Enter your balance: 001238234
Your updated balance: $1,238,234
```



## *Still Serious exercises*

### **Exercise 1**

Given the following dictionary:

```
inventory = {
    'gold' : 500,
    'pouch' : ['flint', 'twine', 'gemstone'],
    'backpack' : ['xylophone', 'dagger', 'bedroll', 'bread loaf']
}
```

Try to do the followings:

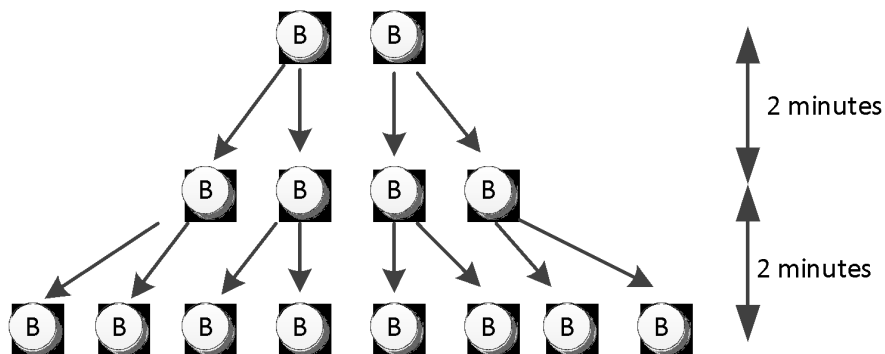
- Add a key to inventory called 'pocket'.
- Set the value of 'pocket' to be a **list** consisting of the strings 'seashell', 'strange berry', and 'lint'.
- Then remove 'dagger' from the list of items stored under the '**backpack**' key.
- Add 50 to the number stored under the '**gold**' key.

Write a program to count number occurrences in a list, with AND without using `count()` function

```
numbers = [1, 6, 8, 1, 2, 1, 5, 6]
```

```
Enter a number? 1
1 appears 3 times in my list
```

Bacteria B **replicates** itself each 2 minutes, write a program that asks users to enter two numbers: the **initial B bacteria number** and a period of **time (in minutes)**. Calculate and print out the **total number of B bacteria** after this period.



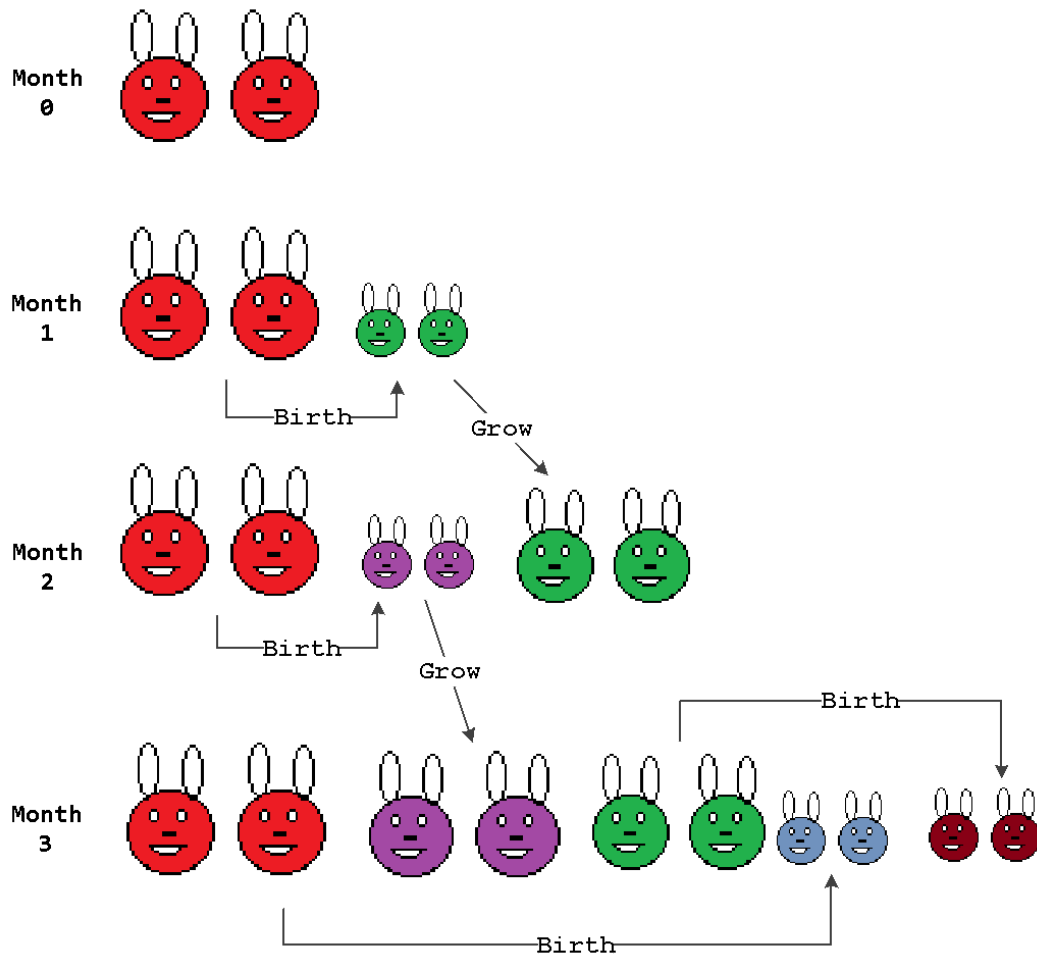
How many B bacteria are there? 3  
How much time in minutes will we wait? 2  
After 2 minutes, we would have 6 bacteria

Or:

```
How many B bacterias are there? 2  
How much time in minutes will we wait? 4  
After 4 minutes, we would have 8 bacterias
```

#### Exercise 4

1. (Optional) In Happy Farm, there are initially a couple of rabbits (female and male). This couple of the rabbits reproduces a new couple of rabbits each month. Each newborn rabbit couple becomes mature in one month and then gives a life to a new rabbit couple each month after. Write a program that calculates the number of pair of rabbit after 4 months.



Expected screen output:

```
Month 0: 1 pair(s) of rabbit
Month 1: 2 pair(s) of rabbit
Month 2: 3 pair(s) of rabbit
Month 3: 5 pair(s) of rabbit
Month 4: 8 pair(s) of rabbit
```

[If you need hint, scroll to the last page](#)

**Exercise 5 (optional):**

Create a new dictionary called `prices` using `{}` format like the example above.

Put these values in your `prices` dictionary:

- `"banana": 4,`
- `"apple": 2,`
- `"orange": 1.5,`
- `"pear": 3`

Create another dictionary called `stock` using `{}`:

Put these values in your `stock` dictionary

- `"banana": 6,`
- `"apple": 0,`
- `"orange": 32,`
- `"pear": 15`

- Loop through each key in `prices`. For each key, print out the key along with its price and stock information. Print the answer in the following format:

- `apple`
- `price: 2`
- `stock: 0`

- `pear`
- `price: 3`
- `stock: 15`

- Let's determine how much money you would make if you sold all of your food.
  - Create a variable called `total` and set it to zero.
  - Loop through the prices dictionaries. For each key in `prices`, multiply the number in `prices` by the number in `stock`. Print that value into the console and then add it to `total`.
  - Finally, outside your loop, print `total`.



Google "Fibonacci sequence"