Python Number Game

1. Import the `random` **number library into your program**

```
import random
```

2. Create a *variable* **to contain a random number and create a** *variable* **to keep track of the number of guesses.**

```
import random

numguess = 0
number = random.randint(1, 20) #returns random integer within range
```

3. Print off a line telling the user what the game is about

```
import random

numguess = 0
number = random.randint(1, 20) #returns random integer within range
print('I am thinking of a number between 1 and 20.')
```

4. Create a `while` **loop for the game**

```
import random

numguess = 0
number = random.randint(1, 20) #returns random integer within range
print('I am thinking of a number between 1 and 20.')

while numguess < 6:
```

5. Use the *`input()`* **function to take whatever was typed in and then assign it to a** *variable.* **Then we need to change this guess from a** *string* **to an** *integer.*

```
import random

numguess = 0
number = random.randint(1, 20) #returns random integer within range
print('I am thinking of a number between 1 and 20.')

while numguess < 6:
    guess = input('Guess a number: ')

    guess = int(guess)
```

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6. Add one to the number of guesses taken.

```python
import random

numguess = 0
number = random.randint(1, 20) #returns random integer within range
print('I am thinking of a number between 1 and 20.')

while numguess < 6:
    guess = input("Guess a number: ")

    guess = int(guess)
    numguess = numguess + 1
```

7. Make an _if_ statement for if the players guess is too low

```python
import random

numguess = 0
number = random.randint(1, 20) #returns random integer within range
print('I am thinking of a number between 1 and 20.')

while numguess < 6:
    guess = input("Guess a number: ")

    guess = int(guess)
    numguess = numguess + 1

    if guess < number:
        print ("Your guess is too low")
```

8. See if you can make the _if_ statement if the guess is too high on your own

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9. Make an *if* **statement for if the user guesses the correct number. We need to convert the** *numguess* **to a** *string* **rather than an** *integer* **to use it in the** `print` **function.**
> **take note of the == sign! and the* *break* *out of the game**

```
import random

numguess = 0
number = random.randint(1, 20) #returns random integer within range
print('I am thinking of a number between 1 and 20.')

while numguess < 6:
        guess = input('Guess a number: ')

        guess = int(guess)
        numguess = numguess + 1

        if guess < number:
                print ('Your guess is too low.')
        if guess > number:
                print ('Your guess is too high.')
        if guess == number:
                numguess = str(numguess)
                print ('Good job! You guessed my number in' + numguess + ' trys.')
                break
```

10. Go to a new line and delete the tab over so that this line matches with the *while* **loop**
> **remember that python is tab sensitive**

11. Make an *if* **statement for if the user guesses the wrong answer once all their guesses have been used up.**

```
import random

numguess = 0
number = random.randint(1, 20)      #returns random integer within range
print('I am thinking of a number between 1 and 20.')

while numguess < 6:
        guess = input("Guess a number: ")

        guess = int(guess)
        numguess = numguess + 1

        if guess < number:
                print ("Your guess is too low.")
        if guess > number:
                print ("Your guess is too high.")
        if guess == number:
                print ("Good job! You guessed my number in" + numguess + "trys.")
                break

if guess != number:             #if the guess DOES NOT EQUAL number
        number = str(number)
        print ("Nope, you ran out of attempts. I was thinking of the number " + number)
```