day7 math
Due: Wednesday 8/30/23

Your task today:
1. Create a new repl. Name it "day7 math". Put your name in a comment at the top.
2. Print a message saying we're going to do some crazy math today.
3. Start a while True: loop.
4. Ask the user to enter two integers, store them into variables a and b.
5. Print out the following information:
   a. Print "you entered" and then print the two numbers.
   b. The square root of a
   c. The square root of b
   d. a raised to the b power
   e. b raised to the a power
   f. a modulo b
   g. b modulo a
   h. Say if a is odd or even
   i. Say if b is odd or even
   j. Say if a is larger, smaller, or the same as b using an if/elif/else structure

      For all of these calculations (items b through j above) your print calls need to say what is happening as shown in my sample output below. So if the square root of a is 4, you need to print "The square root of 16 is 4" not just "4".

6. After all of the above, ask the user if they want to run again. If they say no, break out of the loop and print a goodbye message, otherwise start over.

Use the above as your checklist. As stated above, please show what each problem is on the same line as the answer. In other words, instead of just doing this:

```
print(a**.5)
```

do something like this:

```
print( "The square root of", a, "is", a**.5 )
```

Here is a sample run:

```
We're going to do some crazy math today!

Please enter an integer: 2
Please enter another integer: 5
Now stand back and get ready to be amazed by my mad math skills!

You entered: 2 and 5
The square root of 2 = 1.4142135623730951
The square root of 5 = 2.23606797749979
2 raised to the 5 power = 32
5 raised to the 2 power = 25
When you divide 2 by 5 the remainder is 2
When you divide 5 by 2 the remainder is 1
2 is even
5 is odd
5 is the bigger of the two numbers
Would you like to run again? (y/n) n
Have a good day!
```
If you finish early, you must add more to your program as follows on the next page.

1. Add "import random" to the top of your program and then create a third variable that is a random number between 50 and 100 using this call: c = random.randint(50,100).

Print the third number like this:

```
The third number is 67.
```

Print the third number's square root.
Print if the third number is odd or even.
Print if the third number is greater, less than, or equal to the sum of the first two numbers (a + b) using an if/elif/else structure.

```
The third number is 67,
The square root of 67 is 8.18535277187245
67 is odd
67 is larger than 7, the sum of 2 and 5
```

2. Go back up to the upper part of your program and print a stars and then b stars like this:

```
You entered: 2 and 5
2 **
5 *****
```

You can do this with a command like this:

```
print(a, a*"*")
```

Add a line to print the third variable number of stars.

3. Create a fourth variable that is the sum of a, b and c. Print it, then print if that number is odd or even:

```
The sum of 2 5 and 67 is 74 which is an even number.
```