

CS103 Fall 2018 Lab 9

Question 1: Game of Questions (GameQuestions.java)

Make a program which plays a simple game of 2 Questions.

The first question should be "**animal, vegetable, or mineral?**"

Then, the second question should be "**is it bigger than a breadbox?**"

Then, display one of six possible responses, depending on their answers.

You can choose what answers to give for each of the six possibilities.

Here's a suggestion:

size \ type	animal	vegetable	mineral
smaller than a breadbox	squirrel	carrot	paper clip
bigger than a breadbox	moose	watermelon	Camaro

You will use nested if statements to do this.

Here the sample:

```
TWO QUESTIONS!
Think of an object, and I'll try to guess it.

Question 1) Is it animal, vegetable, or mineral?
> animal

Question 2) Is it bigger than a breadbox?
> no
My guess is that you are thinking of a squirrel.
```

Question 2: A Number-Guessing Game (NumberGuess.java)

That's a basic game. Pick a **random number from 1 to 10** and have the **user** try to **guess** that.

They can guess until they get it right and **count the number of tries** it takes them to guess it.

You must use "while" loop.

Here the sample:

```
I have chosen a number between 1 and 10. Try to guess it.  
Your guess: 5  
That is incorrect. Guess again.  
Your guess: 4  
That is incorrect. Guess again.  
Your guess: 8  
That is incorrect. Guess again.  
Your guess: 6  
That's right! You're a good guesser.  
It only took you 4 tries.
```

Question 3: Right-Angled Triangle Checker (RightTriangleChecker.java)

Write a program to allow the **user** to enter three integers.

You must use “**do-while**” to enforce that these integers are in **ascending order**, though duplicate numbers are allowed.

Tell the user whether or not these integers would represent the sides of **a right-angled triangle**. (like 3-4-5 or 6-8-10, the angle between side 1 and side 2 is 90 degree).

Here the samples:

```
Enter three integers:
Side 1: 6
Side 2: 8
Side 3: 10

Your three sides are 6 8 10
These sides *do* make a right triangle.
```

```
Enter three integers:
Side 1: 4
Side 2: 3
3 is smaller than 4. Try again.
Side 2: -9
-9 is smaller than 4. Try again.
Side 2: 5
Side 3: 1
1 is smaller than 5. Try again.
Side 3: 5

Your three sides are 4 5 5
NO! These sides do not make a right triangle!
```