

CS 100 Exercise 4: Java Loops
Summer 2001
Due in lecture, Tuesday July 3

Name: _____ **CUID:** _____

1. Objective

The purpose of this exercise is to experiment with loops in Java.

2. Simulating coin flips

The following is (almost) a program that simulates a given number of coin flips, and then reports on how many of them were heads and how many were tails. You will turn it into a fully working program by filling in the blanks. **Remember to use good style (e.g., informative variable names, comments if necessary).**

```
// Exercise 4, CS 100 Summer 2001
public class Exercise4
{
    public static void main(String[] args)
    {
        // Declare your variables here.

        // Prompt user for a number from 1 to 100
        System.out.println("Enter the number of coin flips (1 to 100):");
        _____ = SavitchIn.readLineInt();

        // Loop the specified number of times

        for ( _____ ; _____ ; _____ )
        {
            // This generates a random integer, either 0 or 1.
            // Treat 1 as heads, 0 as tails.
            int flip = (int) (Math.random()*2);
            // Update your statistics here:

        }

        // Report output to the user
        System.out.println("The number of heads was: " + _____);

        System.out.println("The number of tails was: " + _____);

        // Tell the user what percent of flips came up heads

        System.out.println(_____);
    }
}
```