

CS 21 Introduction to Java Programming:

Project 7:

1. A fair coin toss should be 50-50 chance.
So, design a static function named `toss` so that

```
public static int toss(){  
    /* Put your own code here */  
}
```

This `toss` function should return 0 and 1 only. Try using `Math.random()` function to create this `toss` function so that 0 representing the tail side of a coin while 1 represents the head side of a coin.

Then, print out the results for 10 coin tosses.

2. Now, start to do experiments to toss coins for
100 times, 1000 times, 10000 times and 100000 times.

Then, print out the percentage of heads in each experiment.

3. The expected result should be:

```
Part 1:  
Toss 0 is 0  
Toss 1 is 1  
Toss 2 is 0  
Toss 3 is 1  
Toss 4 is 1  
Toss 5 is 1  
Toss 6 is 0  
Toss 7 is 0  
Toss 8 is 0  
Toss 9 is 0  
  
Part 2: 100 Toss  
Head has 49.0000% heads in 100 tosses.  
  
Part 3: 1000 Toss  
Head has 51.7000% heads in 1000 tosses.  
  
Part 4: 10000 Toss  
Head has 50.4400% heads in 10000 tosses.  
  
Part 5: 100000 Toss  
Head has 49.6210% heads in 100000 tosses.
```