

# Casino.java

**Objective:** To use predefined classes to solve a problem.

## Background:

Let's use the **Dice** and **Prompt** classes we just created. **LittleJackpot** showed us how many times it take to win a 4-wheel jackpot based on the number of sides of the wheel. Now we want to run numerous trials to get an average number of times it take to win given wheels of 4 to 20 sides. The best way to convey this information is with a histogram, so we will print that out too.

## Assignment:

1. Write a program that prompts the user for the number of trials to be conducted. This should be a number from 10 to 100,000.
2. You start with a set of 4 wheels, each having 4 sides. You run one trial to see how many times it takes for a jackpot (all the wheels match). You run this trial again until you reach the number of trials input, average the number of spins it took and record this number for wheels having 4 sides. Perform this over again for 5-sided wheels, then 6-sided wheels, and so forth up to 20-sided wheels. Make sure to store the average number of spins it took for each. Use arrays for your Dice and for the average number of spins.
3. Print out the results in a histogram and the format matters! See sample results below. User input is shown in **bold**. Set the maximum number of asterisks to 60.

```
% java Casino

The number of trials (10 - 100000) -> 10

Number
of      Ave number
sides   of spins
4:      76
5:      99
6:      357 **
7:      331 *
8:      473 **
9:      780 ****
10:     742 ****
11:    1323 ****
12:    1193 ****
13:    2300 ****
14:    3119 ****
15:    3179 ****
16:    5381 ****
17:    6284 ****
18:    6100 ****
19:   10446 ****
20:    7204 ****
```