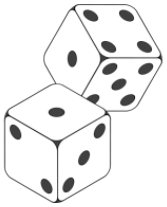
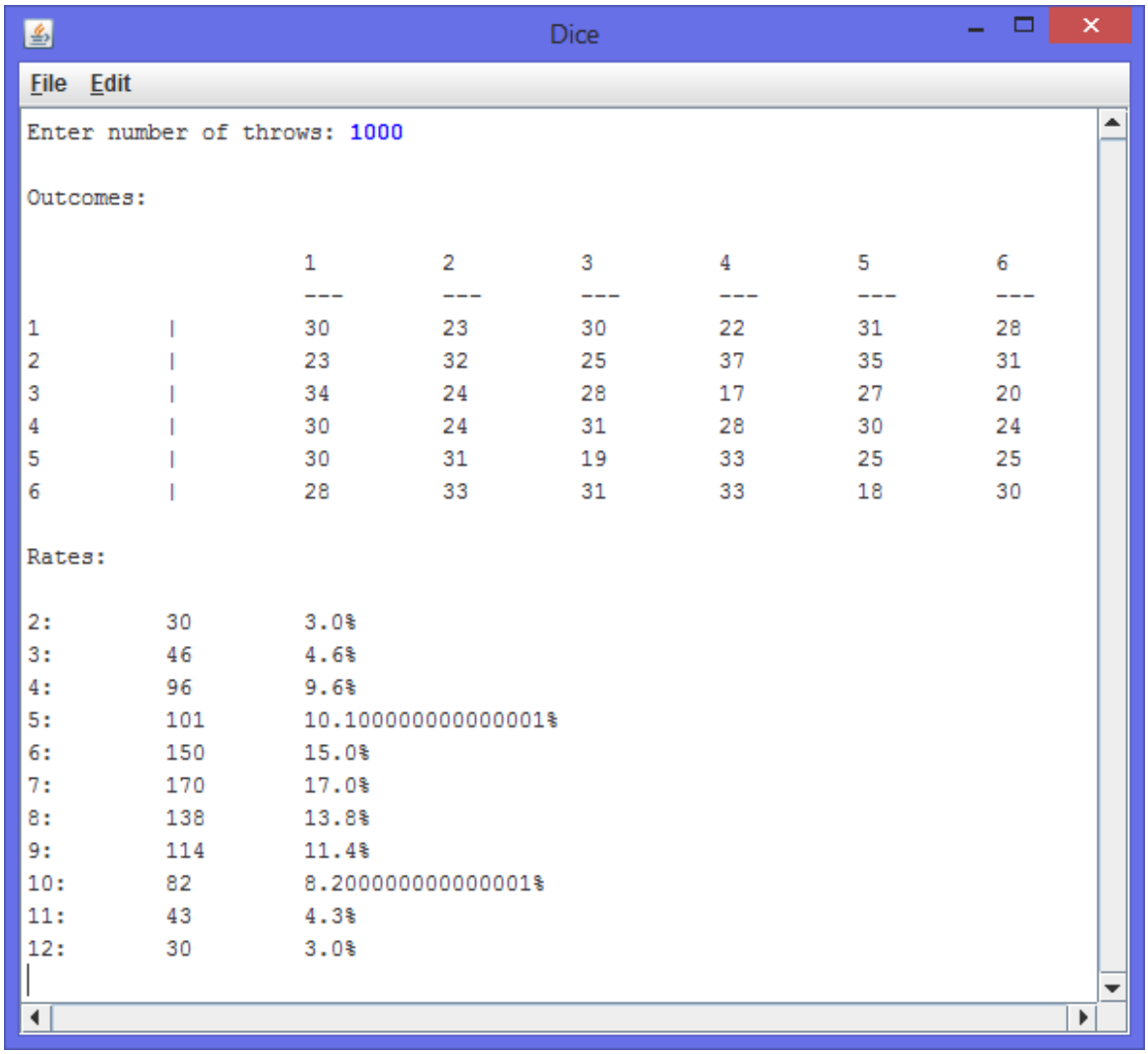
Dice

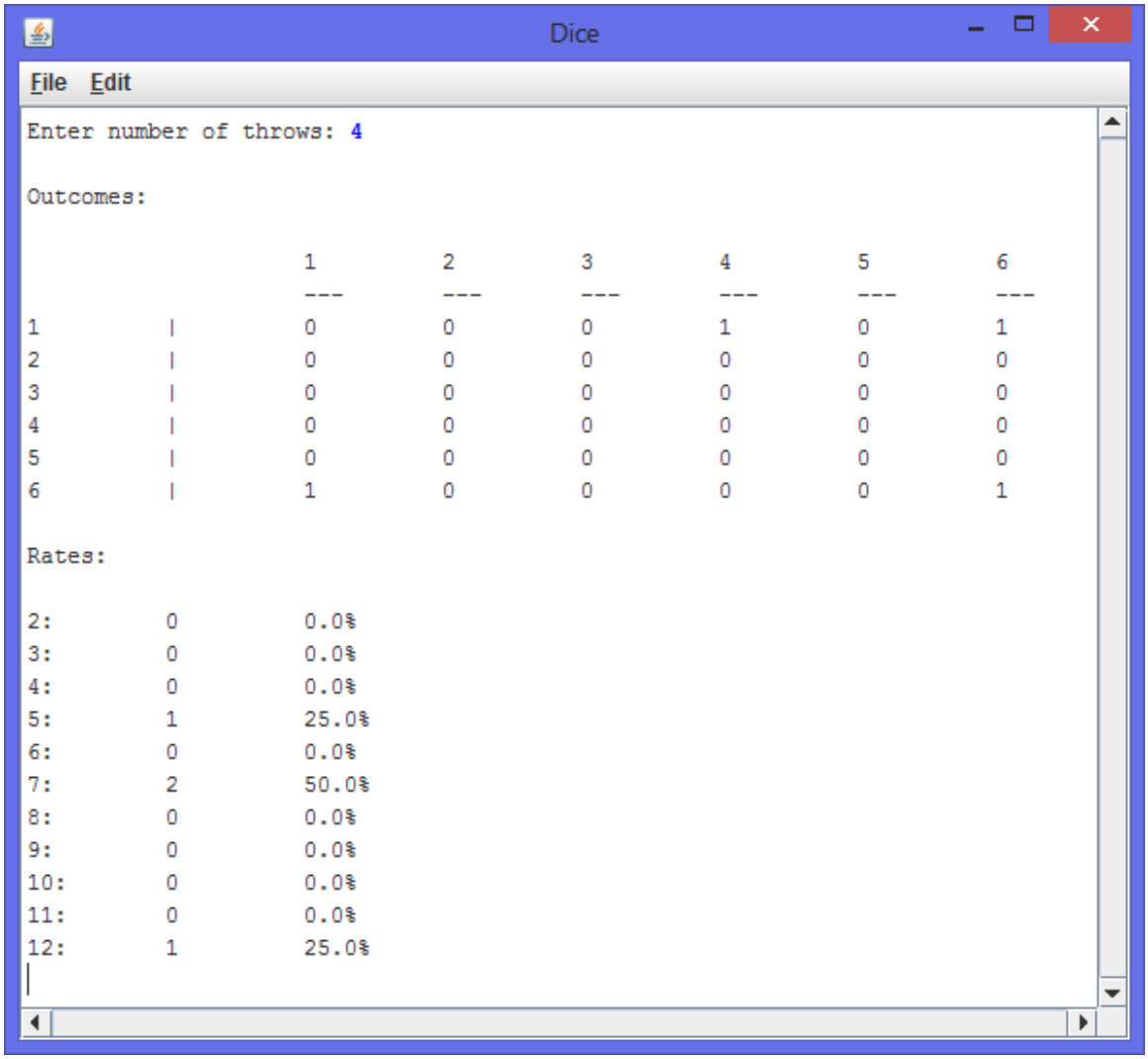


You want to test the probabilities for throwing a pair of dice. A regular die will give values between 1 and 6, inclusive, and a pair of dice will give values between 2 and 12. However their probabilities are not equally likely. You will have 6-6 with probability 1/36, whereas you will have a total of seven with probability 6/36 with outcomes 1-6, 2-5, 3-4, 4-3, 5-2, and 6-1.

Create an application which will first ask how many throws that you want to generate. Then, a 2D table that will hold the frequency of each outcome (such as 2-5, 3-4, 4-3 etc.) should be created with all entries initialized to 0. Thereafter, random outcomes will be generated. You will generate two separate random numbers between 1 and 6 inclusive each to represent the outcome. Afterwards, you will increase the corresponding frequency in the 2D table by one. Having generated these outcomes, you will display the outcomes as a table. Finally, you will display the frequencies for the totals of the pairs and their rates.

[See sample runs below]


Dice
File Edit
Enter number of throws: 1000
Outcomes:
1 2 3 4 5 6
1 | 30 23 30 22 31 28
2 | 23 32 25 37 35 31
3 | 34 24 28 17 27 20
4 | 30 24 31 28 30 24
5 | 30 31 19 33 25 25
6 | 28 33 31 33 18 30
Rates:
2: 30 3.0%
3: 46 4.6%
4: 96 9.6%
5: 101 10.100000000000001%
6: 150 15.0%
7: 170 17.0%
8: 138 13.8%
9: 114 11.4%
10: 82 8.200000000000001%
11: 43 4.3%
12: 30 3.0%


Dice
File Edit
Enter number of throws: 4
Outcomes:
1 2 3 4 5 6
1 | 0 0 0 1 0 1
2 | 0 0 0 0 0 0
3 | 0 0 0 0 0 0
4 | 0 0 0 0 0 0
5 | 0 0 0 0 0 0
6 | 1 0 0 0 0 1
Rates:
2: 0 0.0%
3: 0 0.0%
4: 0 0.0%
5: 1 25.0%
6: 0 0.0%
7: 2 50.0%
8: 0 0.0%
9: 0 0.0%
10: 0 0.0%
11: 0 0.0%
12: 1 25.0%