Stats Library:

```
<terminated> TestStatsLibrary [Java Application] C:\Users\16093\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.6.v20230125-1136\jre\bin\javaw
The average is: 3.125
The median is: 2.5
The standard deviation is: 1.7677669529663689
The mode is: 2.0
Union: [Monday, Tuesday, Wednesday, FRIDAY!!, Sunday, Thursday, Saturday]
Intersection: [Monday, Tuesday, Wednesday, FRIDAY!!, Sunday]
Complement: [Thursday, Saturday]
Combination of 8 and 5 is: 56.0
Permutation of 8 and 5 is: 6720.0
The binomial distribution probability of 3 and 5 given the probability 0.4 is = 0.23040000000000005
P(X = 3) with a probability of 0.4 is = 0.144
```

Game Show:

```
Win rate when not changing doors: 0.3296 or roughly 33%
Win rate when not changing doors: 0.6137 or roughly 66%
```