

```
.project .project ExpectedValue.java Tester.java DoorGame.java Tester,
20 [    }
21
22 public static boolean hasSharedBirthday(int people) {
23
24     boolean[] calendar = new boolean[365];
25
26     for (int i = 0; i < people; i++) {
27         People person = new People();
28         int birthday = person.getBirthday();
29         if (calendar[birthday]) {
30             return true;
31         }
32         calendar[birthday] = true;
33     }
34     return false;
35 }
36 }
37
38
39
40
```

```
1 import java.util.Random;
2
3 public class Tester {
4     public static void main(String[] args) {
5
6         int people = 3;
7
8         int runs = 1000;
9
10        int sharedBirthdayCount = 0;
11
12
13
14
15
16        for (int i = 0; i < runs; i++) {
17            if (People.hasSharedBirthday(people)) {
18                sharedBirthdayCount++;
19            }
20        }
21
```

Console × Git Staging

<terminated> Tester (6) [Java Application] C:\Users\Jaiden Nunez\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86
Probability of at least two people sharing a birthday: 0.80%

```
1 import java.util.Random;
2
3 public class Tester {
4     public static void main(String[] args) {
5
6         int people = 30;
7
8         int runs = 1000;
9
10        int sharedBirthdayCount = 0;
11
12
13
14
15
16        for (int i = 0; i < runs; i++) {
17            if (People.hasSharedBirthday(people)) {
18                sharedBirthdayCount++;
19            }
20        }
21
```

Console X Git Staging

<terminated> Tester (6) [Java Application] C:\Users\Jaiden Nunez\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64_17.0.7.v20230425-1502\jre\bin\

Probability of at least two people sharing a birthday: 70.90%