

```

1 import java.util.Random;
2 import java.util.Scanner;
3
4 public class RockPaperScissors {
5     final static int ROCK = 1;
6     final static int PAPER = 2;
7     final static int SCISSORS = 3;
8
9     static Scanner scanner = new Scanner(System.in);
10    static Random random = new Random();
11
12    public static void main(String[] args) {
13        // Get the number of rounds
14        int winsToReach = input("Wie viele Siege sind zum Gewinnen notwendig?");
15
16        int playerWins = 0;
17        int computerWins = 0;
18
19        while (playerWins < winsToReach && computerWins < winsToReach) {
20            System.out.println("");
21            System.out.println("Neue Runde. Es steht " + playerWins + " : " + computerWins);
22
23            // Get the player's choice
24            int playerChoice = input("Wähle: (1) Stein, (2) Papier, (3) Schere");
25
26            // Validate the player's choice
27            if (playerChoice < 1 || playerChoice > 3) {
28                System.out.println("Ungültige Eingabe. Wähle 1, 2 oder 3.");
29            } else {
30                // Get the computer's choice
31                int computerChoice = random.nextInt(3) + 1;
32
33                String playerChoiceStr = choiceToString(playerChoice);
34                String computerChoiceStr = choiceToString(computerChoice);
35                System.out.print(playerChoiceStr + " - " + computerChoiceStr + ": ");
36
37                // Determine the winner
38                if (playerChoice == computerChoice) {
39                    System.out.println("Unentschieden!");
40                } else if (
41                    (playerChoice == ROCK && computerChoice == SCISSORS) ||
42                    (playerChoice == PAPER && computerChoice == ROCK) ||
43                    (playerChoice == SCISSORS && computerChoice == PAPER)
44                ) {
45                    System.out.println("Du gewinnst!");
46                    playerWins++;
47                } else {
48                    System.out.println("Computer gewinnt!");
49                    computerWins++;
50                }
51            }
52        }
53
54        // Display the final results
55        System.out.println("\nEndresultat:");
56
57        // Determine the overall winner
58        if (playerWins > computerWins) {
59            System.out.println("Du gewinnst " + playerWins + " : " + computerWins);
60        } else if (computerWins > playerWins) {
61            System.out.println("Computer gewinnt " + computerWins + " : " + playerWins);
62            System.out.println("Nächstes Mal hast du mehr Glück!");
63        }
64    }
65
66
67

```

```
68
69     private static int input(String message) {
70         System.out.println(message);
71         return scanner.nextInt();
72     }
73
74     private static String choiceToString(int choice) {
75         if ( choice == ROCK ) return "Stein";
76         else if ( choice == PAPER ) return "Papier";
77         else if ( choice == SCISSORS ) return "Schere";
78         else return "Ungültige Auswahl";
79     }
80 }
```