4.13 Factorials (1 to 20)

public class Factorials {

   public static void main(String[] args) {

       System.out.printf("%-10s%-20s%n", "n", "n!");

       for (int i = 1; i <= 20; i++) {

           long factorial = 1;

           for (int j = 1; j <= i; j++)

               factorial \*= j;

           System.out.printf("%-10d%-20d%n", i, factorial);

       }

   }

}

• Problem with 100!: It exceeds the range of long, leading to overflow.