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Tutorial exercises
Objektorientierte Programmierung: Wintersemester 2021/2022
Nr. 4

Task 4.1: Vale Decem

Use the Hornder-scheme to convert the following numbers into their correct representation:

a) 128 to binary.
b) 103 to hexadecimal.
c) 152 to octal.

Use twos complement to convert the following numbers into 8 bit binary:

d) -95
e) -15

Task 4.2: Planet of the Ood

The number 0 is even. n is even if $n-1$ is odd and n is odd if $n-1$ is even. This is true for all natural numbers.

Implement both methods below in a way that they call each other as mentioned above:

- `boolean isEven(int n)` that returns `true` if the given number is even
- `boolean isOdd(int n)` that returns `true` if the given number is odd

Task 4.3: Turn Left

Rewrite the method *countCharacter* in such a way that it uses a *for*-loop instead of a *while*-loop and still computes the same result.

```
1  int countCharacter(char c, String s){
2    int counter = 0;
3    int i = 0;
4    while(i < s.length()){
5      if(s.charAt(i)==c){
6        counter++;
7      }
8      i++;
9    }
10   return counter;
11 }
```