## Lab 7.3.1 Exceptions: checking strings

### Objectives

Familiarize the student with:

- using exceptions in a real program;
- throwing exceptions;
- throwing exceptions in constructors.

### Scenario

IP numbers – implement a class which stores an IP number and prints the subnet of a chosen range. The range is passed to the print method by a number which is a power of 2 (it could be 1, 2, 4, 8, 16, 32, 64, 128, 256). Try to imagine all incorrect situations, then write a code which throws an exception when someone passes invalid arguments. You can throw exceptions in a constructor and in the print method.

**Example input**

```
212.111.212.128 2
212.112.212.128 4
212.113.212.128 6
212.114.212.328 4
```

**Example output**

```
212.111.212.129
212.111.212.130

212.112.212.129
212.112.212.130
212.112.212.131
212.112.212.132

Exception - invalid range.
Exception - invalid IP number.
```