

- 1) Write a program including a method to find a maximum between 3 different integers. Your program prompts the user to provide 3 different integers and then display the maximum of these 3 integers by calling the max method. Your program should have at least 3 methods: 1) getting the input and check if the inputs are valid, 2) max method, 3) displaying the results.
- 2) Write a program to find a greatest common divisor between 2 integers. The greatest common divisor of 2 integers is the largest positive integer that divides the numbers without a remainder. For example, the GCD of 8 and 12 is 4. Your program prompts the user to provide 2 different integers and then display the GCD of these 2 integers by calling the GCD method. Your program should have at least 3 methods: 1) getting the input and check if the inputs are valid, 2) GCD method, 3) displaying the results.
- 3) Write a program to find prime numbers. Prime number is an integer greater than 1 that has no positive divisors other than 1 and itself. For example, 2, 3, 5, 7 are prime numbers. Your program prompts the user to provide the number of prime numbers and then display the first prime numbers in a nice format, 10 number per line. Sample output:

```
run:
provide the number of prime number you want:
50
The first 50 prime numbers are

 2   3   5   7   11  13  17  19  23  29
31  37  41  43  47  53  59  61  67  71
73  79  83  89  97  101 103 107 109 113
127 131 137 139 149 151 157 163 167 173
179 181 191 193 197 199 211 223 227 229
BUILD SUCCESSFUL (total time: 3 seconds)
```

Your program should have at least 3 methods: 1) getting the input and check if the inputs are valid, 2) finding prime numbers method, 3) displaying the results.