**HW2**

**Due Date: 15/11/2015, Midnight**

1. (Compute the least common multiple) Write a program that prompts the user to enter two positive integers, and displays their least common multiple (LCM). (You must use Scanner class to get input from user.)

(*Hint*: Let *n1* and *n2* be two numbers entered by the user. Their least common multiple is the smallest number which is divisible by both *n1* and *n2*.)

1. (Palindromic prime) A *palindromic prime* is a prime number and also palindromic. For example, 131 is a prime and also a palindromic prime, as are 313 and 757. Write a program that displays the first 100 palindromic prime numbers. Display 10 numbers per line, separated by exactly one space, as follows:

2 3 5 7 11 101 131 151 181 191

313 353 373 727 757 787 797 919 929

…

1. Write a program that prints out characters in the form of a grid. The program should ask a number N from the user. The grid must be drawn as a square whose edge is N characters. The outermost characters must be \* characters describing a border. Inside the border a checkerboard must be drawn using space and + characters. The top-left corner checkerboard character must be + character. Below are the outputs for 5 different values of N.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| N=10 | N=5 | N=1 | N=3 | N=4 |
| \*\*\*\*\*\*\*\*\*\*  \*+ + + + \*  \* + + + +\*  \*+ + + + \*  \* + + + +\*  \*+ + + + \*  \* + + + +\*  \*+ + + + \*  \* + + + +\*  \*\*\*\*\*\*\*\*\*\* | \*\*\*\*\*  \*+ +\*  \* + \*  \*+ +\*  \*\*\*\*\* | \* | \*\*\*  \*+\*  \*\*\* | \*\*\*\*  \*+ \*  \* +\*  \*\*\*\* |