Object-oriented Programming
Assignment Sheet No. 1

Date: October 18

Exercise 1.1 (Integer Expressions)

Write a program that reads the length and width of a rectangle as integers from the console and then calculates and prints

(i) the area of the rectangle, and

(ii) the circumference of the rectangle.

Exercise 1.2 (Conditional Statements)

Write a program that reads two integer numbers a and b from the console and prints either

- the text "both numbers are equal" if $a = b$, or

- the smaller of a and b, followed by the text " is smaller than ", followed by the larger of a and b.

Example: If the users enters 7 and 3, the output shall be: 3 is smaller than 7

Exercise 1.3 (Integer Expressions and Loops)

Write a program that reads an integer n from the console, and then prints all square numbers $\leq n$.

Example: If the user enters 20, the output shall be: 1, 4, 9, 16

Exercise 1.4 (Integer Expressions and Conditional Statements)

Write a program that reads two integer numbers a and b from the console, and then prints the integer quotient and remainder of a divided by b. The program shall print an error message if this would require a division by zero.

Example: If the user enters 7 and 3, the output shall be: 2, remainder 1

Exercise 1.5 (Conditional Statements and Loops)

Write a program that reads integer numbers from the console until the user enters 0, and then prints the number of positive numbers and the number of negative numbers the user has entered.

Example: If the user enters 5 -2 3 12 -20 the output shall be: 3 positive, 2 negative