

# INTRODUCTION TO COMPUTER SCIENCE

The John Paul II Catholic University of Lublin - mgr Sara Jurczyk – 2023/2024

## Selection statement: if...else

---

**Exercise 1.** Write a program that asks the user to type one number and then displays information whether it is number 5 or not.

**Exercise 2.** Write a program that asks the user to type one number and then displays information whether it is positive, negative or zero.

**Exercise 3.** Write a program that asks the user to type an integer and then displays information whether the number represents a month of a year.

**Exercise 4.** Write a program that asks the user to type two integers and displays their quotient (if it exists).

**Exercise 5.** Write a program that calculates and displays the area of a square (if it is possible). Take the side of the square from the user.

**Exercise 6.** Write a program that asks the user to type a number and then displays information whether it is even or odd.

**Exercise 7.** Write a program that asks the user to type two numbers and then displays them in decreasing order.

**Exercise 8.** Modify exercise 3 so that if user enters a month number, it will display its corresponding month name (e.g. if user inputs 3 the program displays „March”).

**Exercise 9.** Write a program that asks the user to type two numbers  $a, b$  and then (if it is possible) calculates and displays  $(a+b) / (a-b)$ .

**Exercise 10.** Write a program that asks the user to type an integer and then displays information whether the number consists of only one digit.

**Exercise 11.** Write a program that asks the user to type a number (which represents a year) and then displays information „the current year”, „past”, or „future”.

**Exercise 12.** Define an interval  $[a, b]$  in your program. Write a program that asks the user to type a number and then displays information whether this number is in interval  $[a, b]$ .

**Exercise 13.** Modify exercise 12 so that user could define an interval  $[a, b]$ .

**Exercise 14.** Write a program that asks the user to type 3 numbers and displays whether their sum is bigger than 30 or not.

**Exercise 15.** Write a program that asks the user to type a number (which represents the amount of points he got during exam). If the amount of points is greater or equal 50 the program prints „Passing grade”. Otherwise, the program prints „Failing grade”.

**Exercise 16.** Write a program that asks the user to type one number which represents the amount of points he got during exam. The program should display the corresponding grade according to the points below:

0 – 50 points: „2 unsatisfactory”

51 – 70 points: „3 satisfactory”

71 – 90 points: „4 good”

91 – 100 points: „5 very good”

**Exercise 17.** Write a program that asks the user to type a number (which represents a year) and then displays information whether it is a leap year (leap year is divisible by 4 and is not divisible by 100, or it is divisible by 400).