Exercise 1:

Write a program that outputs the parity of an integer: **even** if the number can be divided by 2 and **odd** otherwise.

Exercise 2:

Write program that compare two float numbers.

Exercise 3:

Write a program that solve the equation $a.x = b$ (x is the unknown).

- The program should first read from the user a and b.
- Finally, the program should print the solution of the equation
- Example: for a = 2 and b = 4, the program should print
    - "equation : 2 * x = 4"
    - "x = 2"

Exercise 4:

Write a program that ask the user "Do you want to save changes? (y/n)" and print

- "saved successfully" if the user enter "y"
- "not saved" if the user enter "n"
- Does not print anything otherwise.

Exercise 5:

To access one of the services of the webserver https://api.lbassouli.taz, one should have an account. Write a program that takes a Boolean variable as input (1 if the user has already an account and 0 other) and output "access allowed" if the user is has an account and "access not allowed" otherwise.

The webserver offers some free servers to their registered users. Write a program that takes two Boolean variables:

- The first variables determine if the user I is registered
    - 1 for a registered user
    - 0 otherwise
- The second variable determine the nature of the service
    - 'f' for free service
    - 'p' for a paid service

And output: "allowed" if the user is allowed to benefit from the service and "not allowed" otherwise.

Exercise 6: (bonus exercise)

Write a program that solve a second order equation: $ax^2 + bx + c = 0$ (the unknown is x)

- The program should read from the user a, b, and c
- The program should print the solution of the equation