TCSS141A – SPRING 2021 – ASSIGNMENT FOR WEEK 7;   max 15 points

DUE: Sun 05/16 @ 11:30pm, the assignment has to be submitted to the CANVAS

The name of the file: (your) lastname_hw6.py

Please start the program with: # your name

In the program you can use only methods and tools already introduced in the class!

PROBLEM: FUNCTIONS

Create a file with three functions specified below.

➢ **FUNCTION A:**

Write a function `is_valid` with a parameter representing a real number and then displays whether the number is valid or no.

The entered number x is valid if $100 \leq x \leq 500$ and is multiple of four.

Then verify whether the function works by calling the function for the values 104, 516, and 221.

➢ **FUNCTION B:**

Write a function `num_words`, which takes as an argument a sentence and displays:

- The sentence;
- The number of words in the sentence.

Then verify whether the function works by calling the function twice for the following sentences: "Today is a beautiful day!" and "Hello!"

- ➢ **FUNCTION C:**

  Write a function `digit_sum`, which takes as an argument an integer (positive or negative) and displays the sum of digits of the integer.

  Then verify whether the function works by calling the function three times for the following arguments: 2135, -168, -47101.

  Note: An integer is a perfect square if there is an integer such that it is a base of the square. Examples: 16 is a perfect square, because 4**2=16, but 17 is not a perfect square because such integer doesn't exist.

  See examples of possible outputs:

```
***function A

The number 104 is valid.

The number 516 is not valid.

The number 221 is not valid.

***function B

The sentence is:  Today is a beautiful day!
The sentence has  5  words.

The sentence is:  Hello!
The sentence has  1  words.

***function C

The entered integer is: 2135
The sum of digits is:  11

The entered integer is: -168
The sum of digits is:  15

The entered integer is: -47101
The sum of digits is:  13
>>> |
```