**Time Allowed: 2 hours**

**Weight: 20% of the overall module mark**

This is an open book test but **you are only allowed to use your OWN previous lab examples and notes**. You can’t use Google.

**Submission**: Please submit your solution as **Python file(s)** through Brightspace.

**Question 1 [20 marks]:**

Write a Python **function** that takes a list of numbers and returns a new list that contains only the numbers greater than 30 **and** divisible by 3.

**Sample input and output:**

For example, for the list [34, 12, 1, 16, 39, 44, 11, 57, 44, 3] your function should return [39, 31, 57]

**Question 2:**

1. **[20 marks]** Write a Python **function** that will take a string and will **reverse every second word if the length of the word is even**.

You can ignore punctuation (consider it part of the word)

1. **[10 marks]** Use the function from part (a) in a program, that reads text from a file *file\_input.txt* and reverses every second word in each line if the length of that word is an even number.

Save the “reversed” text in a second file called *file\_output.txt*.

**Sample input and output:**

For example, for the input:

Rudolph the Red-Nosed Reindeer

Had a very shiny nose

And if you ever saw it

You would even say it glows

the program should produce the result below (the words in bold are just to illustrate which words have been reversed):

Rudolph the Red-Nosed **reednieR** Had a very shiny nose And **fi** you **reve** saw **ti** You would even say it glows