

Write a Python program that reads an input file `input.txt` with multiple lines that contain integer numbers, computes the average of even numbers, computes the average of odd numbers, stores the results in a dictionary under the keys “odd” and “even” respectively, and prints that dictionary to the console and to the output file `output.txt`

INPUT FORMAT

Input file will consist of multiple lines. Each line will contain an arbitrary number of integers separated by an exclamation mark '!' (not spaces!). Example input:

`input.txt`

`12!45!49!50!1!-10`

`-15!56!-12!4!5!-10`

OUTPUT FORMAT

1. Your program should print the following sentence to the console before outputting the results:

Quiz: Dictionary

2. Read all numbers from the input file, calculate the average of odd numbers, calculate the average of even numbers, and store the result in a dictionary data structure.
3. You should print the dictionary both to the screen and to a file named `output.txt`
4. Example output for the given sample input:

```
{ 'odd': 17.0, 'even': 12.857142857142858 }
```

SUBMISSION FORMAT

1. Teamwork is not allowed and only individual works whose submit score is 1 will be considered for evaluation!
2. Save your Python file as `quiz3.py`
3. Zip your file before submitting (not .rar, only .zip files are supported by the system). File hierarchy:
 - `<student id>.zip`
 - `quiz3.py`