

Homework 7

Question 1. Solve any fourteen problems over at <https://projecteuler.net>.

- 1) Your program should take no more than a minute to solve any given problem. You may use either Java or Python for this. You are only allowed to use the standard libraries in either language.
- 2) All your programs must compile and run from the command line by either using `javac` and `java` commands, e. g.,
`javac Tashfeen1.java`
`java Tashfeen1`
 Or,
`python3 Tashfeen1.py`
- 3) You should only have *one file for each problem*. Name each file starting with your last name followed by the problem number. E. g., if I solved the first Project Euler problem, I'll name it `Tashfeen1.java`.
- 4) Your program should print nothing but the number that solves the problem.
- 5) Include your answer as a comment at the top of each source file. See listing 1 for an example.

```

1  // 233168
2  public class Tashfeen1 {
3      public static void main(String[] args) {
4          int sum = 0;
5          for (int i = 0; i < 1000; i++)
6              if (i % 3 == 0 || i % 5 == 0)
7                  sum += i;
8          System.out.println(sum);
9      }
10 }
```

LISTING 1. A solution to the Project Euler's first problem as an example.

1.1. SUBMISSION INSTRUCTIONS

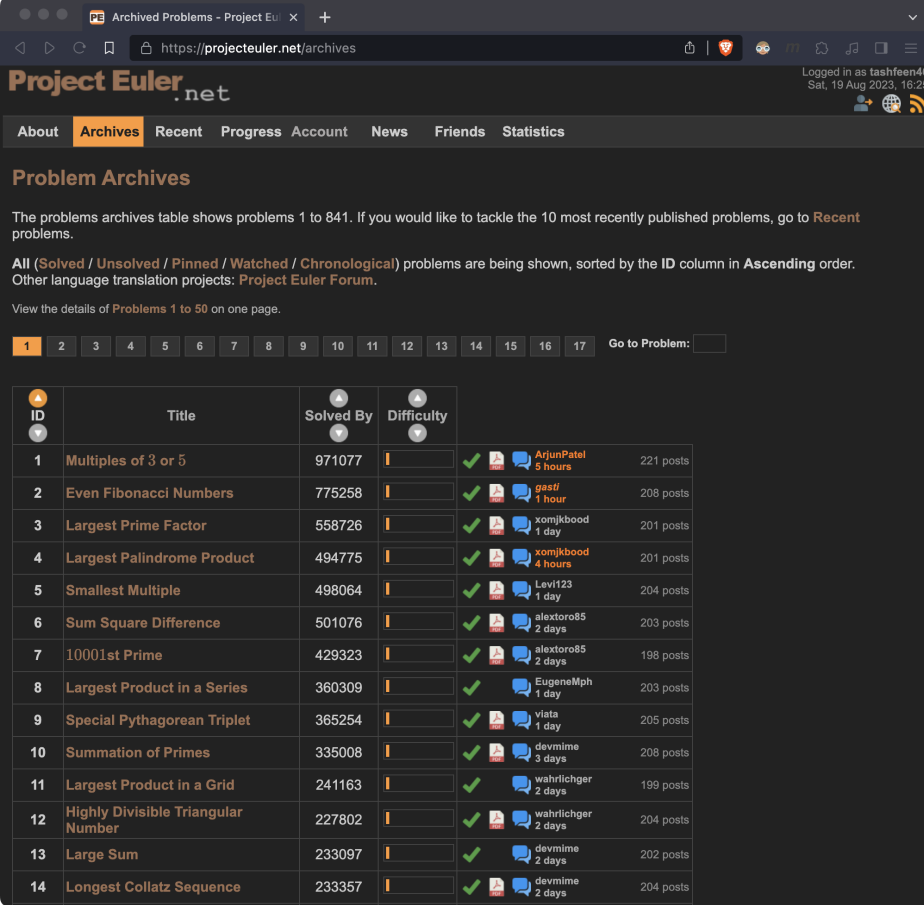
Please *replace the professor's last name* with yours wherever appropriate.

Setup a GitHub repository by the name `f23csci2114hw7tashfeen`¹. It should contain,

```
f23csci2114hw7tashfeen
scTashfeen.png
Tashfeen1.java
Tashfeen2.java
Tashfeen3.java
Tashfeen4.java
Tashfeen5.java
Tashfeen6.java
Tashfeen7.java
Tashfeen8.java
Tashfeen9.java
Tashfeen10.java
Tashfeen11.java
Tashfeen12.java
Tashfeen13.java
Tashfeen14.java
```

¹E. g., replace the professor's last name by yours here.

Submit all the files to the online classroom and comment a link to your Github repository. The file called scTashfeen.png is a screenshot showing all the problems you solved on Project Euler and your username. See figure 1 for example.



Project Euler .net

Logged in as tashfeen46
Sat, 19 Aug 2023, 16:25

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Problem Archives

The problems archives table shows problems 1 to 841. If you would like to tackle the 10 most recently published problems, go to [Recent](#) problems.

All (Solved / Unsolved / Pinned / Watched / Chronological) problems are being shown, sorted by the ID column in **Ascending** order.
Other language translation projects: [Project Euler Forum](#).

View the details of [Problems 1 to 50](#) on one page.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 Go to Problem:

ID	Title	Solved By	Difficulty			
1	Multiples of 3 or 5	971077	I	✓	ArjunPatel 5 hours	221 posts
2	Even Fibonacci Numbers	775258	I	✓	gasti 1 hour	208 posts
3	Largest Prime Factor	558726	I	✓	xomjkbood 1 day	201 posts
4	Largest Palindrome Product	494775	I	✓	xomjkbood 4 hours	201 posts
5	Smallest Multiple	498064	I	✓	Levi123 1 day	204 posts
6	Sum Square Difference	501076	I	✓	alexto85 2 days	203 posts
7	10001st Prime	429323	I	✓	alexto85 2 days	198 posts
8	Largest Product in a Series	360309	I	✓	EugeneMph 1 day	203 posts
9	Special Pythagorean Triplet	365254	I	✓	viata 1 day	205 posts
10	Summation of Primes	335008	I	✓	devmime 3 days	208 posts
11	Largest Product in a Grid	241163	I	✓	wahrlichger 2 days	199 posts
12	Highly Divisible Triangular Number	227802	I	✓	wahrlichger 2 days	204 posts
13	Large Sum	233097	I	✓	devmime 2 days	202 posts
14	Longest Collatz Sequence	233357	I	✓	devmime 2 days	204 posts

FIGURE 1. Screenshot of solved project Euler problems and username.