

Project Euler #26, Reciprocal Cycles (Modified)

[Submit Assignment](#)

Due	Monday by 6pm	Points	100	Submitting	a file upload	File Types	java
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Complete Project Euler #26. However, we will make the following modifications to the problem:

- The project must be solved with Java.
- The class name must be ReciprocalCycles and the file name must match.
- The program takes in a single command line argument, which is the denominator.
- The denominator input should be an integer in the range [1, 2000]. However, anything that is not an integer or is outside the range should produce an error message with the format seen below. Of course, the -13 in single quotes should be the command line argument that was taken in.

Error: Denominator must be an integer in [1, 2000]. Received '-13'.

Here are some examples of the expected output. Decimals with a cycle should also display the cycle length.

```
$ java ReciprocalCycles 2
```

```
1/2 = 0.5
```

```
$ java ReciprocalCycles 7
```

```
1/7 = 0.(142857), cycle length 6
```

You may use this [test script](#) to get some of the easy cases correct. It is certainly not a comprehensive set of test cases, so be sure to test more thoroughly on your own.

Submit ReciprocalCycles.java (not .class). Make sure the name of every member of the team is in the source code and in the comments section on Canvas. Only one submission per team is required. Don't forget the Stevens pledge.