Problem Set 2 Exercise #14: Power of 3

Reference: Lecture 5 notes

Learning objectives: Repetition statements; Writing efficient programs

Estimated completion time: 45 minutes

Problem statement:

Write a program **power_of_3.c** that reads two positive integers *start*, *end* (1 < *start* < *end*) from user and counts how many natural numbers in range [*start*, *end*] (both inclusive) that are power of 3. For example, there are 2 natural numbers in range [2, 10] that are power of 3. They are: 3 and 9.

A tip is given at the end of this page.

Sample run #1:

```
Enter start and end: 2 10
Answer = 2
```

Sample run #2:

```
Enter start and end: 3 30
Answer = 3
```

Useful tips:

A program using nested loops will pass 4 out of 5 test cases. A program with single loops will be able to pass all test cases.