

Assignment 1

Ray Johns

June 25, 2020

1 Q1

The program searches 39999 numbers (1 through 40000, non-inclusive of the endpoint).

There are four perfect numbers in this interval, namely 6, 28, 496, and 8128.

2 Q3

It takes less work to evaluate the `isPerfect` algorithm on the number 10 than on the number 1000. That's because it calls `divisorSum`, which checks to see whether any number in the range $[1, n)$ is a divisor of n for each n between 1 and the stopping point. There is less computation required when the stopping point is 10 than when it is 1000.