

Adam Gincel, Alex Massenzio, Matt Gomez

CS 370

SPOJ #2

Through debugging our code, which we believe followed the Canvas-given algorithm well at first, we ended up making changes which turned our nonsensical output (ie 50 is a prime number) to the correct answers. By the end we had a version which worked and outputted all prime numbers from  $a$  to  $b$ . However, upon looking back at the changes we made, we are fairly certain we have now implemented a modified normal Sieve, instead of the segmented Sieve. It takes around 12 seconds to begin outputting  $a = 1$   $b = 1,000,000,000$ . We've run small tests ( $a = 3$ ,  $b = 62$  and the like) and big tests ( $a = 90$ ,  $b = 294,650$  etc), all of which output correctly as far as we can see.

Unfortunately, we run out of execution time on SPOJ.