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Lab 12 - Prime Numbers

1.- It took me around 4 hours to complete this assignment

2. The hardest part, which I don't feel comfortable about of what I did where the FOR loops, i believe there's something wrong about them, maybe when writing the code it would be easier to figure out what's it. It was also hard to think about a good method to do the algorithm without diving and using the modulus operator.

3. It was clear, I just read the instructions wrong and noticed it few hours before the due date.

Pseudocode

```
1  n <- GET prompt user for a number n
2  list_1 <- 2,3,4,5,6,7,8, 10...n
3  not_prime <- [empty_list]
4  READ list_1
5  FOR number in list_1
6      FOR counter in list_1:
7          review_number <- number * counter
8          add review_number to not_prime
9          IF review_number not it not_prime list:
10             PUT review_number  ##This will be a prime number
```

Program Trace

	number	counter	review_number
5	2	2	0
6	2	2	0
7	2	2	4
6	2	3	4
7	2	3	6
6	2	4	6
7	2	4	8
6	2	5	8
7	2	5	10
5	3	2	10
6	3	2	10
7	3	2	6

And so on...

Algorithmic Efficiency

At this point it has an efficiency of O(n log n) since I'm using a loop inside another loop, which will slow the execution by double because it is looping the list in two different occations, despit that we don't need to review the numbers a double of times. It would be better to change this efficiency.