

Homework Assignment 6

Due Dec. 10

Please answer each of the below questions. Remember, you may work together, but everyone **MUST** type up and understand their solutions. Solutions that appear copied will be considered a violation of the academic honesty code. Also, you must list all people you work with on this homework as well as any outside resources (e.g., web search, books, etc.) that you use.

Make sure you are using the Second Edition of the text book (blue cover).

1. Exercise 13.2 in the book. Note that for $N = pq$, $\phi(N^2) = p \cdot (p - 1) \cdot q \cdot (q - 1)$
2. Exercise 12.3 in the book
3. Exercise 12.6 in the book
4. Exercise 12.14 in the book