Tutorial

1. Find the value of $\phi(29)$, $\phi(80)$, $\phi(100)$, $\phi(101)$.

2. Find the value of X for the following set of congruence using the Chinese remainder theorem.

      a. X= 2 mod 7, and X= 3 mod 9

      b. X=4 mod 5, and X= 10 mode 11

3. Find the results of the following, using Fermat's little Theorem.

      a. 5^{-1} mod 13

      b. 15^{-1} mod 17