

1. Decipher the message:

QFYL RYYJ XD

knowing it was encoded with an affine cipher with key $a = 5$ and $b = 17$.

2. Suppose $d = \gcd(21497, 20048)$.
 - (a) Find d
 - (b) Find k, l such that $d = 21497 \cdot k + 20048 \cdot l$.
3. For each of the following find $a^{-1} \pmod{m}$ or explain why no such inverse exists. That is, find c such that $ac \equiv 1 \pmod{m}$.
 - (a) $a = 264865, m = 1400001$
 - (b) $a = 14877, m = 2698$.
4. (Wait until Wednesday) Find $\phi(2616300)$
5.
 - (a) Get a picture of you with Globalization RA, PA (other than CaroLynn) or professor (other than me).
 - (b) Get a picture of a place to buy food on campus that you have never bought food at.