

1. (a) Determine if 7195296108776055628838430883126951940490665561433322902716166654921316378572921522412602670620628816058353180918401833584808380183964280907 is prime or composite. If its composite, 100 bonus points for factoring it
- (b) Determine if 28668432532356550283405751136272474066757037391177653437539467503196650715333102347966617626819482860341085340619689264316013050983951674499 is prime or composite. If its composite, 100 bonus points for factoring it
2. Suppose you recover the following message fragment: 2777162760075698642193735780281661768817071912396202208452675688572652877248025204994349354088467602243087056944079428773686605833427393050061520836836221169339 from Alice to you. Decipher it knowing it was enciphered with RSA and enciphering key $e = 2787076423983116283414461879443204032227552508463766786708558681417068925457387870843902099077442918463265962321203093884456466081822966095242891537505153371773$ and private keys: $p = 95635755644860569738870960342115022398039034820419104335856981832084611198692761$ and $q = 60127242329144903693049234035255582762546690080391756228629841738681007129648041$.
3. (a) Express the number 850 in binary.
- (b) What number has the hexadecimal expression $1ab8b0$.