

1. (a) Determine if 26266420821755846767903229943872448216978563775362413528739799570782012895729253611033166067023054701007436871995892469175515579020024909703 is prime or composite. If its composite, 100 bonus points for factoring it
- (b) Determine if 36184610761562394272680651266207055831168764358131305459948367146751216733630536753099965144993218962709200955703292625048506291629497908601 is prime or composite. If its composite, 100 bonus points for factoring it
2. Suppose you recover the following message fragment: 797913930615628732354835487185291121691470263847548880312823300314909533713462215514437115599385380577578393814147438631276022389392575059726711152213063893260 from Alice to you. Decipher it knowing it was enciphered with RSA and enciphering key $e = 1611158448386963897109777020206075328306673983195260018688639188188287073172134775253584228062539573345842379987204142646174760794823101168022983839603115492493$ and private keys: $p = 91512872519168708979960415552835391900540614548345607941459752595949265422549503$ and $q = 40782212208370464306397758548505865335489526456026494958168543601015552078001257$.
3. (a) Express the number 684 in binary.
- (b) What number has the hexadecimal expression $14aa2f$.