

## Question 2:

- Suppose Bob uses the RSA cryptosystem with a very large modulus  $n$  for which the factorization cannot be found in a reasonable amount of time. Suppose Alice sends a message to Bob by representing each alphabetic character as an integer between 0 and 25 ( $A \rightarrow \dots, Z \rightarrow 25$ ) and then encrypting each number separately using RSA with large  $e$  and large  $n$ .
- Is this method secure?
- If not, describe the most efficient attack against this encryption method.