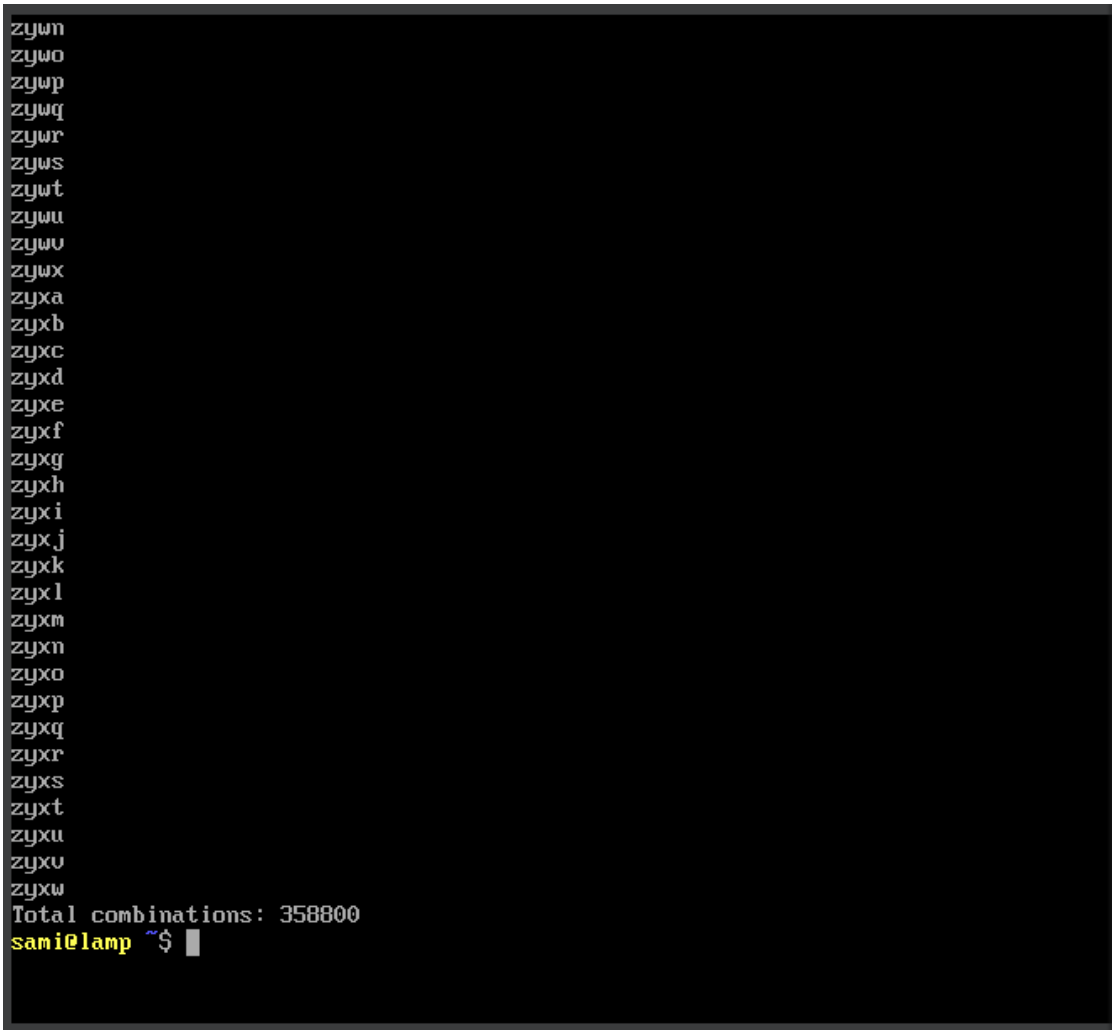
Q1


zywn
zywo
zywp
zywq
zywr
zyws
zywt
zywu
zywv
zywx
zyxa
zyxb
zyxc
zyxd
zyxe
zyxf
zyxg
zyxh
zyxi
zyxj
zyxk
zyxl
zyxm
zyxn
zyxo
zyxp
zyxq
zyxr
zyxs
zyxt
zyxu
zyxv
zyxw
Total combinations: 358800
sami@lamp ~$

Q2

```c
#include <stdio.h>
#include <openssl/bn.h>

int main() {
    // Initialize BIGNUM variables
    BIGNUM *e = BN_new();
    BIGNUM *n = BN_new();
    BIGNUM *phi_n = BN_new();
    BIGNUM *d = BN_new();

    // Set the values of e, n, and phi(n) in hexadecimal format
    BN_hex2bn(&e, "010001");
    BN_hex2bn(&n, "E103ABD94892E3E74AFD724BF28E78366D9676BCCC70118BD0AA1968DBB143D1");
    BN_hex2bn(&phi_n, "E103ABD94892E3E74AFD724BF28E78348D52298BD687C44DEB3A81065A7981A4");

    // Calculate the modular multiplicative inverse of e modulo phi(n) to find d
    BN_mod_inverse(d, e, phi_n, NULL);

    // Print the private key d in hexadecimal format
    char *d_hex = BN_bn2hex(d);
    printf("Private Key (d): %s\n", d_hex);

    // Free allocated memory
    BN_free(e);
    BN_free(n);
    BN_free(phi_n);
    BN_free(d);
    OPENSSL_free(d_hex);

    return 0;
}
```