What is the output of the C program shown below?

#include <stdio.h>

```
int main(void) {
    for (int a=0; a<4; a++) {
        for (int b=0; b<4; b++) {
            if ( (a+b) %2 == 0 )
                printf("X");
        else
                 printf("O");
        }
        printf("\n");
    }
    return 0;
}</pre>
```

What is the output of the C program shown below when the user enters the following input: 47 -89 22 -13 -15 0 10 -5 0

```
#include <stdio.h>
int main(void) {
    int num, x = 0, y = 1;
    scanf("%d", &num);
    while ( num != 0 ) {
        if ( (num>25) || (num<-25) )
            x = x + 1;
        if ( num > 0 )
            y = y * 2;
        scanf("%d", &num);
    }
    printf("%d and %d and %d\n", num, x, y);
    return 0;
}
```