Question 1. (2pts) When you use `malloc()`, how is memory allocated? Circle the best answer.

(a) Memory is allocated on the runtime stack.
(b) Memory is allocated on the runtime heap.
(c) Both (a) and (b), depending on the arguments to `malloc()`.
(d) The operating system uses Snapchat, just to make sure the allocated memory doesn’t stick around too long.

Question 2. (8pts) What is the exact terminal output of the code below? Assume a 64-bit architecture and that all system calls return successfully.

```c
#include <stdio.h>
#include <stdlib.h>

int main()
{
    int i;
    int * q = malloc( sizeof( int ) );

    *q = sizeof( int );

    printf( "q is %d", *q );
    fprintf( stderr, "WOW!\n" );

    char * z = calloc( 20, sizeof( char ) );

    for ( i = 0 ; i < 20 ; i++ )
        z[i] = 'Q';

    z[3] = '\0';

    printf( "%s\n", z );
    fflush( stdout );

    return EXIT_SUCCESS;
}
```