

**1. What is a segmentation fault?**

A segmentation fault is an error that happens when a program tries to access memory that it shouldn't, like invalid pointers.

**2. Write a C function that returns the sum of two integers.**

```
int add(int a, int b) {  
    return a + b;  
}
```

**3. Explain the difference between malloc and calloc.**

malloc allocates uninitialized memory. calloc allocates memory and initializes all bytes to zero.