

1 Procedures and the Stack.

1a True or False

T F A procedure's return address is computed at the beginning of that procedure (i.e., in the callee's prologue).

T F Activation frames are dynamically allocated on the stack.

T F A procedure's local variables can exist in multiple activation frames on the stack at the same time.

T F The offset to a local variable from the beginning of its activation frame is a dynamic value.

T F Variables allocated by calling `malloc` are located on the stack.

1b Given the following type signature for the procedure `foo` and this implementation of the procedure `bar`.

```
int foo(int a, int b);  
void bar(int i) {  
    int j, k;  
    ...  
    CODE GOES HERE  
    ...  
}
```

Give assembly code for each of the following statements of `bar` (i.e., inserted at "CODE GOES HERE").

`k = i + j;`

`k = foo(1, 2);`