

1 Global Variables and Arrays. Answer the following questions about these global variables. Assume that `int`'s and pointers are **4 bytes** long. Treat each sub-question separately: do not use values computed in other sub-questions. No comments needed.

```
int i;  
int a[4];  
int b[4];
```

1a Translate this C statement into assembly: `i = 1`

1b Translate this C statement into assembly: `a[0] = a[2] + a[3]`.

1c Translate this C statement into assembly: `i = i + a[0]`.

1d Translate this C statement into assembly: `b[i] = a[a[2]]`.

1e Translate this C statement into assembly: `b[a[i]] = a[i-1]`.

1f What is the *minimum* number of memory *reads* required to execute this statement? Assume you have enough registers so that no value needs to be read twice.

```
a[b[i]+1] = a[b[i]] + a[b[i]-1];
```