

3. Given the C array declaration

```
C  
double a[3];
```

Mark with an **A** the memory location(s) where we would find `a[1]`

(each box represents a byte in memory)

a:



low memory

high memory

If `a[0]` is allocated at memory location 5000, what value does `&a[2]` evaluate to? _____

4. Given the following C definitions explain why the following are illegal expressions. Be specific.

```
int array[5] = { 5, 4, 3, 2, 1 };  
int *ptr = array;
```

```
**(&ptr[2]+1) = *ptr++;
```

```
(short *)ptr = (short *) (array + 2);
```

5. Define an array of array of ints named `fubar` in Reduced-C such that

```
fubar[7][3]
```

is the last element in this data structure. You will need two lines of Reduced-C code to do this.

6. Why is the use of a traversal pointer to cycle through all the elements of a C/C++ multidimensional array almost always more efficient than using standard array indexing?