#1.
a) Write the appropriate `save` instruction to allocate stack space for the following local variables and any padding.

```plaintext
char a;
short b;
long c;
char d;
char e;
unsigned short f;
```

```
save _______ , ______________________________ , _________
(Use the formula, not an absolute value)
```

b) Write the appropriate unoptimized SPARC assembly instructions using the above local variables.

```plaintext
c = f;
```

```plaintext
b = -6789;
```

```plaintext
d = 'C';
```

```plaintext
a = e;
```

(OVER)
#2.

**a)** Write the appropriate `save` instruction to allocate stack space for the following local variable declaration.

```c
unsigned short a[8];
```

`save _________ , __________________________ , _________`

(Use the formula, not an absolute value)

**b)** Write the appropriate instructions to perform the following assignment statements.

```c
a[7] = a[4];
```

```
________________________
________________________
```

```c
a[5] = a[1];
```

```
________________________
________________________
```

```c
unsigned short *ptr; /* ptr mapped to %l4 */
ptr = &a[1];
```

```
________________________
```

```c
++ptr; /* ptr mapped to %l4 */
```

```
________________________
```

```c
unsigned short d = *ptr; /* d mapped to %l2; ptr to %l4 */
```

```
________________________
```

```c
*ptr = d; /* d mapped to %l2; ptr to %l4 */
```

```
________________________
```

#3. Explain why the name of an array is a non-modifiable l-value.