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

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

```plaintext
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 = 0xCAFE;
```

```plaintext
d = e;
```

```plaintext
a = 'A';
```

(OVER)
#2. a) Write the appropriate `save` instruction to allocate stack space for the following local variable declaration.

```c
short a[10];
save __________ , ______________________________ , __________
(Use the formula, not an absolute value)
```

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

```c
a[7] = a[2];

________________________
________________________

a[0] = a[5];

________________________
________________________

short *ptr; /* ptr mapped to %l4 */
ptr = &a[3];

________________________
________________________

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

________________________
________________________

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

________________________
________________________

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

________________________
________________________
```

#3. Give the equivalent C pointer expression for the following array expression assuming `a` is defined as an array.

```
a[42] is equivalent to ________________________________ (equivalent pointer expression).
```