2 Pts. Question 1) What's the output of the following code (assuming the size of an int is 4 bytes, the size of any address is 8 bytes, and the address of the first element in the array 'x' is 40 in decimal)?

```
int x[] = {3, 5, 12, 15, 10};
printf("%p, %d", x + 3, *(x + 2));        // Write address in decimal to save time
```

52, 12

4 Pts. Question 2) What's the output of the following code (assume the size of an int is 4 bytes, the size of any address is 8 bytes, and the address of the first element in the array 'arr' is 80 in decimal)?

```
void main()
{
        int arr[] = {12, 13, 14};
        printf("%lu, %lu, %lu, %lu\n", sizeof(*arr), sizeof(arr[0]), sizeof(&arr[2]), sizeof(arr));
}
```

4, 4, 8, 12

2 Pts. Question 3) Given that the address of 'num' is 200 in decimal; also given that a the size of a short is 2 bytes. What's the output of the following code:

```
void main()
{
        short num = 10;
        short *my_var = &num;
        printf("%p", my_var + 7);        // Write address in decimal to save time
}
```

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2 Pts. Question 4) Write code to change the element at index 2 for the array 'my_array' by explicitly dereferencing the array to the value 158

*(my_array + 2) = 158

Question 5) According to the code below, answer the following questions:

```
void main()
{
        float var_i = 20;
        float *var_a = &var_i;
        float **var_a_a = &var_a;
}
```

1.5 Pts each.

a) What's the C command that will print the value of 'var_a' using 'var_a_a'?

printf("%p", *var_a_a);

b) What's the C command that will print the address of 'var_a' using 'var_a'?

printf("%p", &var_a);

c) What's the C command that will print the address of 'var_i' using 'var_a_a'?

printf("%p", *var_a_a);

d) What's the C command that will print the value of var_i using 'var_a_a'?

printf("%f", **var_a_a);