an analysis of each program. The report should include explanations of the code, how it works, and observations about the behavior of pointers.

**Assignment 1**

Define variable a, initialize to 5.

Define pointer pointing to a using & operator.

Print the address of a using the name of the pointer variable and by using & operator on a.

We modify the value of a using the pointer p1 by dereferencing and assigning the new value 10.

**Assignment 2**

p2 points to the first element of the array (index 0)

We write normal loop, then use pointer arithmetic to print values in arr:

p2+1 is the second element (index 1), p2+2 is the third element (index 2),

we modify the value using the technique from Assignment 1.

We print the contents.

**Assignment 3**

We declare the function

Define an array with 2 values.

Print the values using pointers

Swap the values using the swap method; which works in the exact same way as a swap without pointers.

Print the values again

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**Assignment 4**

We declare variable var; a pointer that points to var using &var, and a pointer that points to that pointer.

We print the value by dereferencing the 2 pointers

**Assignment 5**

We loop until we reach the null character ‘0\’ signifying the end of the array.

str1 points to the first element of the array “Hello”.

We update str1 in the loop and print every letter of the array.

Then we count the number of letters by str1 - str

str1 ends up pointing to the null character, which is after the letter ‘o’.

str points to the first letter: ‘H’

str1 – str tells us the distance between these letters, which is 5