Summary

1. Purpose of Double Pointers

It is a pointer that points to another pointer

Used when →

- You want to modify a pointer inside a function
- Working with an array of pointers

2. Relation Between Pointers, Arrays, and Strings

- The name of an array as a pointer to its first element

Ex:

```
int a[5];
*a =10;   // the same as a[0]=10
*(a+i) = a[i];
```

- A string is a character array that ends with '\0' .
- Pointers can be used in the traversal of arrays and strings.

3. Purpose of Pointer to Function

Used when →

- if you want to dynamically choose a function during runtime like in calculators. (problem 6)

Ex:

```
int add(int a, int b) {
 return a + b;
}
```

// declare →

int (*functionPtr)(int, int) = add; → points to a function that takes two ints

// call →

functionPtr(5,3);