Solution to question Four

The function named addarrays() that accepts two arrays that are of the same size. The function adds each element in the arrays together and places them in a third array is as written below.

Answer:

```
void addarrays(int array1[], int array2[], int destination_array[], int SIZE){

   for(int i=0;i<SIZE;i++){
      destination_array[i] = array1[i] + array2[i];
   }
}
```

The function created in to return a pointer to the array containing the totals. Place this function in a program that also displays the values in all three arrays

Answer:

```
#include <stdio.h>


int *addarrays(int array1[], int array2[], int SIZE);

main(){
   int array1[] = {2,5,3,22,6};
   int array2[] = {13,143,11,10,121};

   int *array3 = addarrays(array1, array2, 5);
for(int i=0;i<5;i++) {
printf("%d \n", array3[i]);
   }
}


int *addarrays(int array1[], int array2[], int length){
int *destination_array = malloc(length * sizeof(int));     for(int
i=0;i<length;i++){
       destination_array[i] = array1[i] + array2[i];
   }
   return destination_array;
}
```