

Pointers -2

Assignment Questions

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Q1 - Write a program to print the kth element of an array using pointers.

The first line of the input contains the size of the array and the value of k.

The second line of input contains the elements of the array. You can assume that $0 \leq k < \text{size of the array}$.

Sample Input

```
4 3
10 3 20 52
```

Sample output

```
20
```

Q2 - Write a program to find the sum of all the elements of an array. Use pointers to traverse the array. The first line of the input contains the size of the array.

The second line of input contains the elements of the array.

Sample Input:

```
4
1 3 4 2
```

Sample output

```
10
```

Q3 - Write a program to traverse the array in the reverse order using pointers.

The first line of the input contains the size of the array.

The second line of input contains the elements of the array.

Sample Input:

```
5
1 2 3 4 5
```

Sample output

```
5 4 3 2 1
```

Q4 - Using pointers, find the sum of elements present on the primary diagonal of the given n x n 2-D matrix.

The first line of input contains the n, the size of the matrix.

The next n lines contain the number of elements present in each row of the matrix.

Sample Input:

```
3
1 2 3
4 5 6
7 8 9
```

Sample output

```
15
```