2. (3 marks) Provide values of x and y with explanation:

```
1 int arr[] = {5, 10, 15, 20, 25};
2 int *ptr1 = &arr[0];
3 int *ptr2 = &arr[2];
4 int x = *(ptr1+1) + *(ptr2-1);
5 int y = *ptr1 +2 - *(ptr2+1);
```

$x = 20$, $y = -13$

Arrays are contiguous blocks of memory so ptr1+i points to arr[i].

$X = *(ptr1+1) + *(ptr2-1)$

(ptr1+1) points to arr[1]; (ptr2-1) points to arr[1]

$= 10 + 10 = 20$

$Y = *ptr1 + 2 - *(ptr2+1)$

*ptr1 → arr[0]; *(ptr2+1) points to arr[3]

$= 5 + 2 - 20 = -13$

In arrays, we can access elements to the left & right by adding needed values to the pointer as it is a continuous block of memory.