

Section: 02 Name: Jay Pandit

Problems 1-10 refer to the following statements:

```
/*      0  1  2  3  4  5  array positions */  
int x[] = {5, 6, 4, -8, 3, 7};  
int *ptr = &x[0];
```

What is the value of the following expressions? For each problem, restart with the values as above.

	<u>Work Space</u>	<u>Your Answer</u>	<u>Computer</u>
1. *ptr		1. 5	1. 5
2. *ptr + 3		2. 8	2. 8
3. *(ptr+3)		3. -8	3. -8
4. *ptr + *(ptr + 5)		4. 12	4. 12
5. *(ptr + 2) - 1		5. 3	5. 3
6. x[3] - *ptr		6. -13	6. -13
7. *ptr + x[5] + *(ptr + 1) + x[2]		7. 22	7. 22
8. *x		8. 5	8. 5
9. *x + *ptr		9. 5	9. 10
10. x[2] - *ptr + 3		10. 2	10. 2

➔ more on next page

Problems 11-16 refer to the following declarations and function:

```
int partial_sum (int x[], int npts); /* function prototype */
/* Array & variables as initialized in main, abridged */
int main (void)
/*      0  1  2  3  4  5  6  7  array positions */
int a[ ] = {-6, 3, 4, 1, 8, 20, 16, 7};
int *ptr = &a[2];

/*-----*/
/* This function will add up a fragment of the array */
int partial_sum (int x[], int npts) {

    int k, sum = 0;

    /* Compute partial sum. */
    for (k = 0; k < npts; k++)
        sum += x[k];

    return sum;
}
/*-----*/  /* workspace below */
```

	<u>You</u>	<u>Computer</u>
11. What is the value of the reference partial_sum(ptr, 2)	11. 5	11. 5
12. What is the value of the reference partial_sum(ptr+1, 3)	12. 29	12. 29
13. What is the value of the reference partial_sum(a, 8)	13. 53	13. 53
14. What is the value of the reference partial_sum(a, 4)	14. 2	14. 2
15. What is the value of the reference partial_sum(ptr, a[1])	15. 13	15. 13
16. What is the value of the reference partial_sum(&a[3], 2)	16. 9	16. 9