

Name : \_\_\_\_\_

CS 100-002 Quiz #9

Give the output of the C program shown below:

```
#include <stdio.h>

typedef struct item {
    int value;
    struct item *next;
} Item;

int main(void) {
    Item a, b;
    a.value = 1; a.next = &b;
    b.value = 3; b.next = &a;
    Item *ptr = &a;
    for (int z=1; z<5; z++) {
        ptr->value += ptr->next->value;
        ptr = ptr->next;
    }
    printf("%d and %d\n", a.value, b.value);
    return 0;
}
```



Give the output of the C program shown below:

```
#include <stdio.h>

int main(void) {
    int data[4][4] = { {6,7,8,9}, {9,8,7,6},
                       {2,3,4,5}, {5,4,3,2} };
    int x = 0, y = 0;

    for (int a=0; a<4; a++) {
        for (int b=0; b<4; b++) {
            if ( a+b == 3 )
                x = x + data[a][b];
            else if ( a == b )
                y = y + data[a][b];
        }
    }
    printf("%d and %d\n", x, y);
    return 0;
}
```



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Give the output of the C program shown below:

```
typedef struct item {
    int value;
    struct item *next;
} Item;

int main(void) {
    Item a, b;
    a.value = 2; a.next = &b;
    b.value = 4; b.next = &a;
    Item *ptr = &a;
    for (int z=1; z<5; z++) {
        ptr->value += ptr->next->value;
        ptr = ptr->next;
    }
    printf("%d and %d\n", a.value, b.value);
    return 0;
}
```



Give the output of the C program shown below:

```
#include <stdio.h>

int main(void) {
    int data[4][4] = { {1,2,3,4}, {5,4,3,2},
                       {5,6,7,8}, {9,8,7,6} };
    int x = 0, y = 0;

    for (int a=0; a<4; a++) {
        for (int b=0; b<4; b++) {
            if ( a+b == 3 )
                x = x + data[a][b];
            else if ( a == b )
                y = y + data[a][b];
        }
    }
    printf("%d and %d\n", x, y);
    return 0;
}
```

