

# Lab Test 1: Monday Section

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## 1 Question 1

```
/*
Name: Rajanbir Singh
Student number: 216817140
*/

#include <stdio.h>

void printName(char n[], long stdNum, char d[]);

int main(){
printName("Rajanbir Singh", 216817140, "November 13, 1998");
}

void printName(char name[], long stdNum, char dob[]){
printf("{ \"name\" : \"%s\", \"number\" : \"%ld\", \"date\" : \"%s\"}\n", name, stdNum, dob );
}
```

-1 bad indentation  
-1 not ANSI

## 2 Question 2

```
/*
Name: Rajanbir Singh
Student Number: 216817140
*/

#include <stdio.h>

int countDigits(int x, int d);
void testCountDigits(int x, int d, int result, char* msg);

/* q2 (c) */

int main(){
testCountDigits(123, 1, 1, "single digit test");
testCountDigits(10, 0, 1, "single 0 test");
testCountDigits(456456, 4, 2, "two fours");
testCountDigits(111111, 1, 6, "six 1's");
}

/* q2 (a) */

int countDigits(int x, int d){
int temp, result;
result = 0;
```

-1 bad indentation  
-1 not ANSI  
-1 countDigits fails with (0,0)

```

temp = x;
while(temp > 0){
    int y;
    y = temp % 10;
    if(y == d){
        result++;
    }
    temp /= 10;
}
return result;
}

```

/\* q2 (b) \*/

```

void testCountDigits(int x, int d, int result, char *msg){
    int res;
    res = countDigits(x, d);
    if(res == result){
        printf("test passed %s\n", msg);
    }
    else{
        printf("test failed %s\n", msg);
    }
}

```

### 3 Question 3

```

/*
Name: Rajanbir Singh
Std num: 216817140
*/

```

-1 bad indentation  
-1 not ANSI

```

#include <stdio.h>

```

```

/* q3 (a) */
void setTriple(float a, float b, float c, float *x, float *y, float *z){
    *x = a;
    *y = b;
    *z = c;
}

```

```

/* q3 (b) */
void addTriple(float a, float b, float c, float *x, float *y, float *z){
    *x += a;
    *y += b;
    *z += c;
}

```

```

/* q3 (c) */
int main(){
    float x, y, z;

    setTriple(1, 2, 3, &x, &y, &z);
    addTriple(4, 5, 6, &x, &y, &z);
    addTriple(x, y, z, &x, &y, &z);
}

```

```
printf("(%0.2f %0.2f %0.2f)\n", x, y, z);  
return 0;  
}
```