ITCS 201 – Fundamentals of Programming
Lecture 2: Lab Assignments

Submission to PC^2: Make sure your codes pass all of the test cases

Q1: Write a C program to convert from a character into its corresponding ASCII.
- Use `scanf()` to receive a *character* from a user, and use `printf()` to print the output. *Syntax*: `scanf("%c", &input);`
- You may use the ASCII table to check your answer before submitting to PC^2.

Sample inputs and output

#	Input	Output	Expected Screen Output
1	I	73	I 73
2	c	99	c 99
3	T	84	T 84
4	&	38	& 38
5	9	57	9 57

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Q2: Write a C program to convert a number of seconds to hours and print out in the following format: *hr:min:sec*

Sample inputs and output

#	Input	Output	Expected Screen Output
1	33	0:0:33	33 0:0:33
2	785	0:13:5	785 0:13:5
3	7402	2:3:22	7402 2:3:22

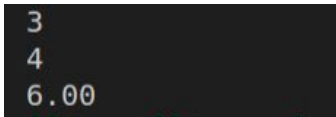**Q3:** Write a C program to calculate the area of a triangle
- Receive a *base* and a *height* of a triangle from a user using `scanf()`
- Calculate the area of the triangle: area = ½ (base*height)
- **Hint**: use `%.2f` for printing *area* with two decimal points.

Sample inputs and output

#	Input	Output	Expected Screen Output
1	3 4	6	3 4 6.00
2	5.6 33	92.40	5.6 33 92.40
3	8.5 9.7	41.22	8.5 9.7 41.22

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Q4: The following C code contains bugs. Identify and fix all bugs by
1. Copying these codes into C files and name it `"GiveMeMoney.c"`
2. Compile the files using `gcc` via command line
3. Read the error message, and fix the bugs accordingly.

Hint: There are 12 bugs in the codes.

```c
include < studio.h>

int main(
    // Receive an input money
    prntf("Give me your money:");
    int money;
    scanf("%d",money);

    // Change money to coins: 10, 5, 1
    int ten = Money/10;
    int remainMoney = money%10;
    five = remainMoney/5
    remainMoney = remainmoney%5;

    /Display change amounts of each type of coins
    printf("Here is your changes.\n");
    printf("Ten:%d,Five:%d,One:%D\n",ten,&five,remainMoney);
    return 0;
}
```

#	Input	Expected Screen Output
1	23	Give me your money:23 Here is your changes. Ten:2, Five:0, One:3
2	77	Give me your money:77 Here is your changes. Ten:7, Five:1, One:2

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