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Q1:

I would expect for this code to add first_value as 5 to second_value as 7 and 1.7 as a float. I expect this due to first_value and second_value are stored as integers while 1.7 and sum are floats. So a result of 13.7 should be printed.

```
int main()
{
    float sum;
    int first_value =5;
    int second_value =7.4;
    sum = first_value+second_value+1.7;
    printf ( "%f " , sum) ;
}
```

Code

```
13.700000

...Program finished with exit code 0
Press ENTER to exit console.
```

Result 1

The result matches what I predicted, this is due to the fact that the `first_value` and `second_value` are stored as integers. Which makes their values 5 and 7 respectively. Then they are added in a float to make 13.7.

Q2:

- The data expected from the user on line 7 is any whole number integer. This limits all number inputs to a rounded down form of the input. All letters would be recognized as 0.
- `%d` on lines 7 and 8 means decimal/integer and assigns it as such. If line 8's `%d` was changed to `%x` would print the answer as a hexadecimal.
- The significance of `\n` and `\r` on line 8 is that `\n` brings up a new line and `\r` makes sure the line starts at the beginning of the new line.

```
#include <stdio.h>

int main()
{
    int user_input;
    printf("Enter a value: ");
    scanf("%d", &user_input);
    printf("The user entered: %d\n\r", user_input);
}
```

Code

```
Enter a value: 5.5
The user entered: 5

...Program finished with exit code 0
Press ENTER to exit console.
```

Result

Q3:

```
#include <stdio.h>

int main()
{
    printf("Guess my number game \n\rguess?\n\n");
    int user_number; scanf("%d", &user_number);
    if(user_number==5)
    {
        printf("you guessed right!");
    }
    else
    {
        printf("You guessed wrong, better luck next time! (You guessed %d)" , user_number);
    }
}
```

Code

```
guess my number game
guess?
5
you guessed right!
```

Result 1 (you guess right)

```
Guess my number game
guess?
2
You guessed wrong, better luck next time! (You guessed 2)
Program finished with exit code 0
```

Result 2 (you guess wrong)