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**Problem 1**

1. False. The function *printf* is not defined in this program. The function is defined in the header #include<stdio.h>.
2. False. This code include two header i.e. stdio.h and string.h and one preprocessor directives i.e. #include which is used twice to show the header in the program as #include

<stdio.h> and #include <string.h>

1. False. Argc is not a function. It is an integer parameter which is found inside the main function and it represents the number of arguments passed to the program.
2. True. If we removed the line #include<string.h>, the program would still run. It runs with showing some warnings.
3. False. If we removed the line #include<stdio.h>, the program would not run. #include<stdio.h> tells the compiler to use functions, structures, macros and etc from file stdio.h.

**Problem 2**

a)

info/data type = int

Actions= I asked for the number of hospital for the comparison for hospital Medicare patients. Here, the number of hospitals taken is 2.

Then, I asked to enter the number of patients in the hospital 1 and 2.

Then, take all the ages of the patients in each hospital.

Then, check the ages of the patients in each hospital.

Then, count all the Medicare patients from each hospital.

Compare count 1 and count 2. Here, count 1 and count 2 are the number of Medicare patients in hospital 1 and hospital 2.

If count 1< count 2, then hospital 2 is better

If count 1> count 2, then hospital 1 is better

If count 1= count 2, then either one of hospital is better.

b)

**For Hospital 1:**

int hospital1[pat1];

printf("Number of patients in hospital 1: ");

scanf("%d", &pat1);

int n;

int hospital1[pat1];

for(n=0;i<pat1;n++) {

printf("Enter age of patient %d:",(n+1));

scanf("%d",&hospital1[n]); }

int m;

for (m=0;m<pat1;m++)

{ if(hospital1[m]>=65)

{ count1++;}

}

**For Hospital 2:**

int hospital2[pat2];

printf("Number of patients in hospital 2: ");

scanf("%d", &pat2);

int b;

for (b=0;j<pat2;b++) {

printf("Enter age of patient %d:",(b+1));

scanf("%d",&hospital2[b]); }

int c;

for(c=0;b<pat2;c++)

{ if(hospital2[b]>=65){

count2++; }

}

**Comparing two count:**

if(count1<count2) {

printf("You should pick 2-they have more Medicare patients.\n");}

else if(count1>count2) {

printf("You should pick 1-they have more Medicare patients.\n");}

else {

printf("They have the same number of Medicare patients-go for either.\n");