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QUIZ 3

Question 4:

Code:

```
#include<stdio.h> //program ton calculate leap year


int main()

{
int month,year,days;

printf("Enter month :"); //prompt user to enter month from 1-12
scanf("%d",&month);

printf("Enter no of days :");// either for leap year in feb days are 28 or 29
scanf("%d",&days);

printf("Enter year :"); // leap year is divisible by 4
scanf("%d",&year);


if (year %4==0)
{
 if (month ==2) // such as Feb
 {
  if (days ==29)
  {
  printf("It is leap year");
 }

 else
 { printf("Not leap year"); // if not then it is not leap year

 }
 }

 return 0;
```

}
}

Output:

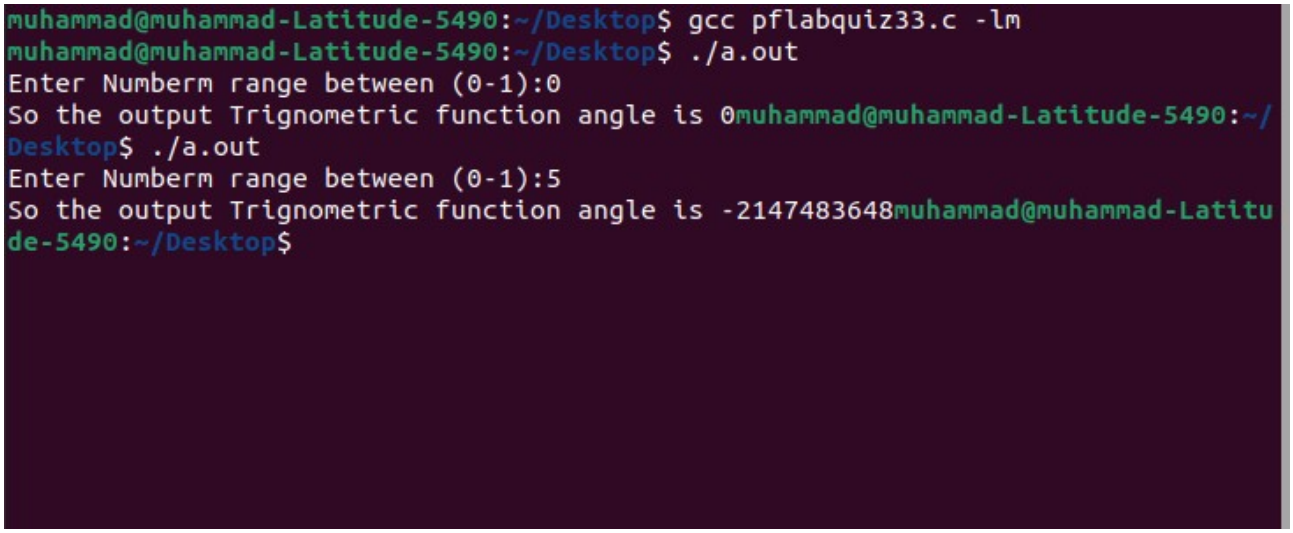
Task 3:

Code:

```
#include<stdio.h>
#include<math.h> // program to calculate inverse of trignometric functions

int calculate_range_of_trignometric(float number);

int main()
{
 float number;

 printf("Enter Numberm range between (0-1):");// enter range of no between (0-1) to
calculate sin inverse otherwise cos
 scanf("%f",&number);

int calculate_range_of_trignometric(float number);
printf("So the output Trignometric function angle is
%d",calculate_range_of_trignometric(number));

return 0;
}
int calculate_range_of_trignometric(float number)
{
  float angle =0; // take angle empty

 if (number >=0 && number <=1)
```

```
 {
  angle;
 angle = asin(number); // inverse function

}
else
{
  angle;
angle =acos(number);

}
return angle;// return angle
}
```

Output:



Task 2:

Code

```
#include<stdio.h> //program to calculate distance traveled and new location
char calculate_starting_point(char starting,int distance );// function declaration



int main()
```

```
{
char starting;
int distance;

printf("Enter starting point:");// prompt user to enter starting location and distance
scanf("%c",&starting);

printf("Enter distance traveled:");
scanf("%d",&distance);

char calculate_starting_point(char starting, int distance ); // function calling
printf("New location is =%c",calculate_starting_point(starting,distance ));

return 0;



}
char calculate_starting_point(char starting, int distance )
{
  char destinaton_location;

 if (starting == 'A' &&  distance ==5); // if condition is true
 {
   destinaton_location = 'F' ;
 }

 if ( starting == 'Z' && distance ==2) // further check the condition
 {
    destinaton_location = 'B' ;
    }
  else {
     printf("Invalid Input"); // other condition so invalid
     }
    return    destinaton_location;
    }
```

Output:

```
muhammad@muhammad-Latitude-5490:~/Desktop$ gcc pflabquiz34.c
muhammad@muhammad-Latitude-5490:~/Desktop$ ./a.out
Enter starting point:A
Enter distance traveled:5
Invalid InputNew location is =Fmuhammad@muhammad-Latitude-5490:~/Desktop$ ./a.ou
./a.out
Enter starting point:Z
Enter distance traveled:2
New location is =Bmuhammad@muhammad-Latitude-5490:~/Desktop$
```

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Task 1:

Code:

```
#include<stdio.h>

int calculate_inflation_rate(int initial_price, int price_1_year_before, int
price_2_year_before);
int compare_inflation_rate();

int main()
{
int initial_price, price_1_year_before,price_2_year_before;

printf("Enter initial price of Car:");
scanf("%d",&initial_price);

printf("Enter initial price of Car 1 year before:");
scanf("%d",& price_1_year_before);

printf("Enter initial price of Car 2 year before:");
scanf("%d",&price_2_year_before);

int calculate_inflation_rate(int initial_price, int price_1_year_before, int
price_2_year_before);

printf("INflation rate is given by
%f",calculate_inflation_rate(initial_price,price_1_year_before,price_2_year_bef
ore));

int compare_inflation_rate(int initial_price ,int price_1_year_before, int
price_2_year_before);
printf("Initial price was %d\n",initial_price);
printf("price 1 year before was %d\n", price_1_year_before);
printf("price 2 year before was %d\n", price_2_year_before);
```

```
return 0;




}

int calculate_inflation_rate(int initial_price, int price_1_year_before, int
price_2_year_before)
{
 float calculate inflation = ((initial_price - price_1_year_before)
/price_1_year_before)) * 100;

 return calculate_inflation:




 }

 int compare_inflation_rate(int initial_price ,int price_1_year_before, int
price_2_year_before)

    }
```