QUESTION 2.1

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```c
#include <stdio.h>

int main() {
    float l1,l2,l3;
    printf("Please enter triangels edge lengths.\n");

    printf("First edge lenght: \n");
    scanf("%f",&l1);

    printf("Second edge lenght: \n");
    scanf("%f",&l2);

    printf("Third edge lenght: \n");
    scanf("%f",&l3);

    if((l1==l2)&&(l2==l3)){
        printf("This triangel is equilateral triangel.\n");

    }else if((l1==l2)||(l1==l3)||(l3==l2)){

        printf("This triangel is isosceles triangel.\n");

    }else{
        printf("This triangel is diverse triangel.\n");
    }

    return 0;
}
```

```
Please enter triangels edge lengths.
First edge lenght:
10
Second edge lenght:
15
Third edge lenght:
10
This triangel is isosceles triangel.

--------------------------------
Process exited after 3.389 seconds with return value 0
Press any key to continue . . .
```

QUESTION 2.2

```c
#include <stdio.h>
#include <math.h>

int main(){
    double a,b,c;
    printf("Enter the coefficients of the second degree equation as ax^2+bx+c \n");
    printf("Enter a=");
    scanf("%lf",&a);

    printf("Enter b=");
    scanf("%lf",&b);

    printf("Enter c=");
    scanf("%lf",&c);

    double delta = pow(b,2)-4*a*c;

    if (a == 0){
        printf("a can not be 0!!!");
        return 1;
    }
    if (delta<0){
        printf("This second degree equation doesn't have any Real Number roots.\n");
        printf("(Because Delta(%lf) is less then zero.\n)",delta);

    }else if(delta==0){
        printf("This second degree equation have just one Real Number root.\n");
        printf("(Because Delta(0) is zero.)\n");
        printf("Root of this second degree equation is %lf\n", -b/(2*a));
    }else{
        printf("This second degree equation have two Real Number roots.\n");
        printf("(Because Delta(%lf) is greater then zero.)\n",delta);
        double x1 = (-b + sqrt(delta))/(2*a);
        double x2 = (-b - sqrt(delta))/(2*a);
        printf("Roots of this second degree equation are %lf and %lf .\n",x1,x2);
    }


    return 0;
}
```

```
Enter the coefficients of the second degree equation as ax^2+bx+c
Enter a=1
Enter b=4
Enter c=1
This second degree equation have two Real Number roots.
(Because Delta(12.000000) is greater then zero.)
Roots of this second degree equation are -0.267949 and -3.732051 .

--------------------------------
Process exited after 2.135 seconds with return value 0
Press any key to continue . . .
```

QUESTION 2.3

```c
#include <stdio.h>

int main(){
    int year;
    printf("Enter e year:");
    scanf("%d",&year);

    if(year%4==0){
        printf("%d is a leap year.",year);
    }else{
        printf("%d is not a leap year.",year);
    }


    return 0;
}
```

```
Enter e year:2024
2024 is a leap year.
--------------------------------
Process exited after 1.947 seconds with return value 0
Press any key to continue . . .
```

QUESTION 2.4

```c
#include <stdio.h>

int main(){
    int int_array[3] = {0,0,0},int_temp;
    printf("Enter 3 integers to sort.\n");
    int i;
    for(i=0;i<3;i++){
        printf("Enter %d. integer:",i+1);
        scanf("%d",&int_array[i]);
    }
    if (int_array[0]>int_array[1]){
        int_temp = int_array[1];
        int_array[1] = int_array[0];
        int_array[0] = int_temp;
    }
    if (int_array[1]>int_array[2]){
        int_temp = int_array[2];
        int_array[2] = int_array[1];
        int_array[1] = int_temp;
    }
    if (int_array[0]>int_array[1]) {
        int_temp = int_array[1];
        int_array[1] = int_array[0];
        int_array[0] = int_temp;
    }
    printf("Sorted integers are:\n");
    for(i=0;i<3;i++){
        printf("%d ",int_array[i]);
    }
    return 0;
}
```

```
Enter 3 integers to sort.
Enter 1. integer:354
Enter 2. integer:575
Enter 3. integer:100
Sorted integers are:
100 354 575
--------------------------------
Process exited after 23.32 seconds with return value 0
Press any key to continue . . .
```

QUESTION 2.5

```c
#include <stdio.h>

int main(){
    float pro_1,pro_2;

    printf("Enter first product\n");
    scanf("%f",&pro_1);

    printf("Enter second product\n");
    scanf("%f",&pro_2);

    if ((pro_1+pro_2)>=200){
        printf("Total is %f",(pro_1+pro_2*0.75));
    }else{
        printf("Total is %f",(pro_1+pro_2));
    }


    return 0;
}
```

```
Enter first product
200
Enter second product
300
Total is 425.000000
--------------------------------
Process exited after 4.811 seconds with return value 0
Press any key to continue . . .
```

QUESTION 2.6

```c
#include <stdio.h>

int main(){
    int number;
    printf("Enter maximum 3-digit number\n");
    scanf("%d",&number);

    if(0<=number&&number<10){
        printf("Number entered by user is one-digit number\n");
    }else if(10<=number&&number<100){
        printf("Number entered by user is two-digit number\n");
    }else if(100<=number&&number<1000){
        printf("Number entered by user is three-digit number\n");
    }else{
        printf("Number entered by user is more than three-digit number or negative number\n");
    }



    return 0;
}
```

```
Enter maximum 3-digit number
354
Number entered by user is three-digit number

--------------------------------
Process exited after 2.172 seconds with return value 0
Press any key to continue . . .
```

QUESTION 2.7

```c
#include <stdio.h>
#include <math.h>

int main(){
    int dgt_4;
    printf("Enter a 4 digit-number:\n");
    scanf("%d",&dgt_4);

    if(999<dgt_4&&dgt_4<10000){
        int i;
        for(i=0;i<4;i++){
            int digit = (int)(dgt_4/pow(10,i))%10;
            printf("%d. digit is %d\n",i+1,digit);
        }
    }else{
        printf("numeros no validas");
    }
return 0;
}
```

```
Enter a 4 digit-number:
1234
1. digit is 4
2. digit is 3
3. digit is 2
4. digit is 1

--------------------------------
Process exited after 2.32 seconds with return value 0
Press any key to continue . . .
```

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