#FEB 12 CODING

/\*1 ✅. Check if a triangle is equilateral, scalene, or isosceles

🔥write code to find the type of the triangle for given side values by using “==” and “&&” operator and If - else

Print “Equilateral triangle.” if values for all side1, side2 and side3 are equal.

Print “Isosceles triangle.” if values for side1 is equal to side2 or side2 is equal to side3

Else “Scalene triangle.” since values of all sides are unequal.\*/

#include <stdio.h>

int main() {

float side1,side2,side3;

side1=19;

side2=18;

side3=18;

if(side1==side2 && side2==side3)

printf("Equilateral triangle");

else if(side1==side2 || side2==side3||side3||side1)

printf("Isoceles triangle");

else

printf("scalene triangle");

return 0;

}

#code2

/\*2 ✅. Find check if a year is leap year or not

🔥 If year is divisble by 4 and not divisble by 100 then print “leap year”.

🔥 Or if year is divisible by 400 then print “leap year”.

🔥 Else print “not a leap year”.\*/

/\*A year that is divisible by 4 but not a leap year would have to violate the standard rules for determining leap years. According to the standard leap year rules:

1. If a year is divisible by 4, it's a leap year, except:

2. If a year is divisible by 100, it's not a leap year, unless:

3. If a year is divisible by 400, it is a leap year.

For example, let's consider the year 1900:

- Divisible by 4? Yes.

- Divisible by 100? Yes.

- Not divisible by 400? Yes.

Therefore, according to the standard rules, the year 1900 is divisible by 4 but not considered a leap year.\*/

#include <stdio.h>

int main() {

int num;

num=printf("Enter a number");

scanf("%d",&num);

if(num%4==0 && num%100!=0 || num%400==0)

{ printf("leap year");

}

else

{

printf("Not a leap year");

} return 0;

}

#code3

/\*✅ write a program that calculates a discount based on the purchase amount

Prices equal or over 100 discount have a discount of 20.

Prices equal or over 50 have a discount of 10.

Otherwise discount is 0\*/

#include <stdio.h>

int main() {

int price,dp,op1,op;

printf("Enter a number");

scanf("%d",&price);

if(price==100 || price>100)

{

op1= price\*20/100;

op= price-op1;

printf("Discount percentage:%d\n",op1);

printf("after discount purchase amount:%d",op);

}

else if(price==50 || price<50)

{

op1=price\*10/100;

op=price-op1;

printf("Discount percentage:%d\n",op1);

printf("after discount purchase amount:%d",op);

}

else

{

printf("otherwise discount is 0");

}

return 0;

}

#code 4

/\*4 ✅ Write a program that calculates the Body Mass Index (BMI) and categorizes it. The formula for BMI is: weight / (height \* height).\*/

#include<stdio.h>

int main()

{

float weight=23;

float height=20;

float bmi=weight/(height\*height);

printf("The body mass index:%.2f\n",bmi);

if (bmi < 18.5) {

printf("Category: Underweight\n");

} else if (bmi < 25) {

printf("Category: Normal weight\n");

} else if (bmi < 30) {

printf("Category: Overweight\n");

} else {

printf("Category: Obese\n");

}

return 0;

}