1. Write a python script to display the number of days in a given month number.

month=int(input("enter a month no"))

match month:

case month if month in (1,3,5,7,8,10,12) :

print("31 days")

case month if month in (4,6,9,11):

print("30 days")

case 2:

print("28 or 29 days")

case default:

print("invalid month no")

2. Write a menu driven program to perform following operations - Addition, Subtraction, Multiplication, Division

x=int(input("enter 1 for addition,for subtractioin 2,for multiplication 3 and for division enter 4"))

print("enter any two no for calculation")

y=int(input("enter first value"))

z=int(input("enter second value"))

match x:

case x if x==1:

a=y+z

print("sum of no's is:-",a)

case x if x==2:

a=y-z

print("substraction of no's is:-",a)

case x if x==3:

a=y\*z

print("multiplication of no's is:-",a)

case x if x==4:

a=y/z

print("division of no's is:-",a)

case \_:

print("entered wrong number")

3. Write a menu driven program with the following options: a. Check whether a given set of three numbers are lengths of an isosceles triangle or not

b. Check whether a given set of three numbers are lengths of sides of a right angled triangle or not

c. Check whether a given set of three numbers are equilateral triangle or not

d. Exit.

'''Scalene Triangle: All the sides and angles are unequal.

Isosceles Triangle: It has two equal sides. Also, the angles opposite these equal sides are equal.

Equilateral Triangle: All the sides are equal and all the three angles equal to 60°.'''

x=int(input("enter angle of x"))

y=int(input("enter angle of y"))

z=int(input("enter angle of z"))

match x,y,z:

case xyz if x==y==z:

print("equilateral triangle")

case xyz if x != y and y !=z and z != x:

print(" scalene triangle")

case xyz if x==y or y==z or z==x:

print("isosceles triangle")

case \_:

exit

4. Write a program which takes user’s age and display the category of person. Age below 10 years- Kid, Age below 20 - Teen, Age below 40 - young, Age below 60 - Experienced, Age above or equal 60 - Senior Citizen

age=int(input("enter age:-"))

match age:

case age if age<10:

print("Kid")

case age if age<20:

print("Teen")

case age if age<40:

print("young")

case age if age<60:

print("Experienced")

case age if age>=60:

print("senior citizen")

5. Write a program which takes a number from user. Print Saurabh Shukla if the number is even, print Prateek Jain if the number is negative odd number and print Aditya Choudhary if number is positive odd number

x=int(input("enter a no"))

match x:

case x if x%2==0 and x>0:

print("Mr Saurabh Shukla")

case x if x<0 and x%2 !=0:

print("Mr Prateek Jain")

case x if x%2!=0 and x>0:

print("Mr Aditya Choudhary")

6. Write a python program to check whether a given string is a multiword string or single word string using match case statement

x=input("enter a strin")

match x:

case x if " " in x:

print("multiword string")

case x if " " not in x:

print("single word string")

7. Write a python program to check whether a given number is positive, negative or zero using match case statement

x=int(input("enter a no"))

match x:

case x if x>0:

print("no is positive")

case x if x<0:

print("no is negative")

case x if x==0:

print("zero entered")

8. Write a python script to check whether two given strings are identical, first string comes before the second in dictionary order or first string comes after the second string in dictionary order using match case statement

x=input("enter a string")

y=input("enter a second string")

if x==y:

print("string equals")

elif x>y:

x,y=y,x

print(x,y)

else:

print(x,y)

9. Write a python script to check whether a given year is

a. Non century leap year

b. Century leap year

c. Non century non leap year

d. Century non leap year

""" if the year is divisible by 100 and not divisible by 400, leap year is skipped.

The year 2000 was a leap year, for example, but the years 1700, 1800, and 1900 were not.

The next time a leap year will be skipped is the year 2100. """

x=int(input("enter a year"))

match x:

case x if x%100==0 and x%400 !=0:

print("Non century leap year")

case x if x%100==0 and x%400==0:

print("Century leap year")

case x if x%400!=0 and x%4!=0:

print("Non cenury non leap year")

case x if x%400!=0:

print("Century non leap year")

10. Write a program to display day name on the basis of user’s liking of a colour. Ask user for his favorite colour. User can answer in a sentence like “I like red colour”. Assuming all colour name entered by user is in lowercase. Use match case to display day name associated with the colour.

a. Yellow – Monday

b. Blue - Tuesday

c. Orange - Wednesday

d. White – Thursday

e. Black - Friday

f. Red – Saturday

g. All other colours – Sunday

x=str(input("enter color name you want to print day for that"))

a,b,c,d,e,f='yellow','blue','orange','white','black','red'

match x:

case x if x ==a:

print("Monday")

case x if x == b:

print("tuesday")

case x if x ==c:

print("wednesday")

case x if x == d:

print("thursday")

case x if x == e:

print("friday")

case x if x== f:

print("saturday")

case \_:

print("sunday")