**FSDS MAY BATCH 2022(Python Programming 2)**

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1. Write a Python program to convert kilometers to miles?

Ans:

# taking user input for kilometers

kilometers = float(input("Enter the value in kilometers: "))

# conversion factor

conv\_factor = 0.621371

# calculating miles

miles = kilometers \* conv\_factor

# printing result

print("{0} kilometers is equal to {1} miles".format(kilometers, miles))

2. Write a Python program to convert Celsius to Fahrenheit?

Ans:

# taking user input for temperature in Celsius

celsius = float(input("Enter temperature in Celsius: "))

# converting Celsius to Fahrenheit

fahrenheit = (celsius \* 1.8) + 32

# printing result

print("{0} Celsius is equal to {1} Fahrenheit".format(celsius, fahrenheit))

3. Write a Python program to display calendar?

Ans:

import calendar

# taking user input for year and month

year = int(input("Enter year: "))

month = int(input("Enter month: "))

# displaying calendar

print(calendar.month(year, month))

4. Write a Python program to solve quadratic equation?

Ans:

import math

# taking user input for coefficients a, b, and c

a = float(input("Enter coefficient a: "))

b = float(input("Enter coefficient b: "))

c = float(input("Enter coefficient c: "))

# calculating discriminant

discriminant = b\*\*2 - 4\*a\*c

# checking for real roots

if discriminant >= 0:

# calculating real roots

root1 = (-b + math.sqrt(discriminant)) / (2\*a)

root2 = (-b - math.sqrt(discriminant)) / (2\*a)

# printing results

print("The roots are {0} and {1}".format(root1, root2))

else:

# calculating complex roots

real\_part = -b / (2\*a)

imag\_part = math.sqrt(abs(discriminant)) / (2\*a)

root1 = complex(real\_part, imag\_part)

root2 = complex(real\_part, -imag\_part)

# printing results

print("The roots are {0} and {1}".format(root1, root2))

5. Write a Python program to swap two variables without temp variable?

Ans:

# taking user input for variables x and y

x = int(input("Enter value for x: "))

y = int(input("Enter value for y: "))

# swapping variables

x, y = y, x

# printing swapped variables

print("After swapping, x =", x)

print("After swapping, y =", y)