

```
In [12]: #inbuilt math moduls
import math as m
print("Value of PI is :",m.pi)
print("Value of Sin 0 is :",m.sin(0))
print("Value of Cos 0 is :",m.cos(0))
print("Value of Tan 0 is :",m.tan(0))
print("Factorial is :",m.factorial(0))
print("Power is :",m.pow(2,3))
```

Value of PI is : 3.141592653589793

Value of Sin 0 is : 0.0

Value of Cos 0 is : 1.0

Value of Tan 0 is : 0.0

Factorial is : 1

Power is : 8.0

```
In [49]: #calendar module #output optional  
import calendar as c  
print(c.month(2023,9))  
print()#space  
print(c.calendar(2023))  
print()#space  
print(c.isleap(2024))  
print()#space  
print(c.day_name[0])  
print()#space  
for i in range(7):  
    print(i,c.day_name[i])
```

September 2023

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    |    |    |    |    | 1  | 2  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 |    |

2023

January

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    |    |    |    |    |    | 1  |
| 2  | 3  | 4  | 5  | 6  | 7  | 8  |
| 9  | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 |    |    |    |    |    |

February

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    |    |    | 1  | 2  | 3  | 4  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 |    |    |    |    |    |

March

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    |    |    | 1  | 2  | 3  | 4  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 |    |    |

April

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    |    |    |    |    | 1  | 2  |
| 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |

May

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
| 1  | 2  | 3  | 4  | 5  | 6  | 7  |
| 8  | 9  | 10 | 11 | 12 | 13 | 14 |
| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | 31 |    |    |    |    |

June

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    |    |    |    | 1  | 2  | 3  |
| 5  | 6  | 7  | 8  | 9  | 10 | 11 |
| 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 26 | 27 | 28 | 29 | 30 |    |    |

July

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    |    |    |    |    | 1  | 2  |
| 3  | 4  | 5  | 6  | 7  | 8  | 9  |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 31 |    |    |    |    |    |    |

August

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    | 1  | 2  | 3  | 4  | 5  | 6  |
| 7  | 8  | 9  | 10 | 11 | 12 | 13 |
| 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 |    |    |    |

September

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    |    |    |    |    | 1  | 2  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 |    |

October

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    |    |    |    |    |    | 1  |
| 2  | 3  | 4  | 5  | 6  | 7  | 8  |
| 9  | 10 | 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 |    |    |    |    |    |

November

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    |    |    | 1  | 2  | 3  | 4  |
| 6  | 7  | 8  | 9  | 10 | 11 | 12 |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 |    |    |    |

December

| Mo | Tu | We | Th | Fr | Sa | Su |
|----|----|----|----|----|----|----|
|    |    |    |    |    | 1  | 2  |
| 4  | 5  | 6  | 7  | 8  | 9  | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

True

Monday

- 0 Monday
- 1 Tuesday
- 2 Wednesday
- 3 Thursday
- 4 Friday
- 5 Saturday
- 6 Sunday

```
In [45]: #Date & Time  
import datetime  
x = datetime.datetime.now()  
print(x)  
print(x.year)  
print(x.month)  
print(x.day)  
print()#space  
print(x.hour)  
print(x.minute)  
print(x.second)  
print()
```

2023-09-13 18:39:14.877610

2023

9

13

18

39

14

```
In [86]: #Date & Time
import datetime
x = datetime.datetime.now()
print(x)

print(x.strftime("%A")) #full day name
print(x.strftime("%a")) #short day name
print(x.strftime("%w")) #sweek day name start with one
print(x.strftime("%d")) #date of day
print(x.strftime("%b")) #short month name
print(x.strftime("%B")) #full month name
print(x.strftime("%M")) #minute
print(x.strftime("%m")) #month name
print(x.strftime("%y")) #short year
print(x.strftime("%Y")) #full year
print(x.strftime("%H")) #hours in 24 formate
print(x.strftime("%I")) #hours in 12 formate
print(x.strftime("%p")) #pm
print(x.strftime("%S")) #second
print(x.strftime("%f")) #milisecond
print(x.strftime("%Z")) #timezone
print(x.strftime("%z")) #timezone
print(x.strftime("%U")) #week number of year
print(x.strftime("%j")) #day of year
print(x.strftime("%C")) #century
print(x.strftime("%c")) #date & time
print(x.strftime("%G")) #year number
print(x.strftime("%V")) #week number
print(x.strftime("%X")) #time
print(x.strftime("%x")) #mm/dd/yy
```

2023-09-13 18:58:42.828396

Wednesday

Wed

3

13

Sep

September

58

09

23

2023

18

06

PM

42

828396

37

256

20

Wed Sep 13 18:58:42 2023

2023

37

18:58:42

09/13/23

