

Program 1:

```
import calendar
```

```
# Input format: MM DD YYYY
```

```
date_input = input().split()
```

```
month = int(date_input[0])
```

```
day = int(date_input[1])
```

```
year = int(date_input[2])
```

```
# weekday() returns 0=Monday, 6=Sunday
```

```
day_index = calendar.weekday(year, month, day)
```

```
# List of days in uppercase
```

```
days = ["MONDAY", "TUESDAY", "WEDNESDAY", "THURSDAY", "FRIDAY", "SATURDAY",  
"SUNDAY"]
```

```
print(days[day_index])
```

Program 2:

# Input number (3 digits only)

num = int(input("Enter a 3-digit number: "))

# Extract digits

a = num // 100      # hundreds place

b = (num // 10) % 10    # tens place

c = num % 10      # units place

# Calculate Armstrong sum

armstrong\_sum = (a\*\*3) + (b\*\*3) + (c\*\*3)

# Check Armstrong condition

if armstrong\_sum == num:

    print("it is an Armstrong number")

else:

    print(" it is not an Armstrong number")

Program 3:

```
def add(a, b):
```

```
    return a + b
```

```
def sub(a, b):
```

```
    return a - b
```

```
# Take input from the user
```

```
x = int(input("Enter first number: "))
```

```
y = int(input("Enter second number: "))
```

```
print("Sum =", add(x, y))
```

```
print("Difference =", sub(x, y))
```

**Program 4:****my\_package/add.py**

```
def add(a, b):  
    return a + b
```

**my\_package/sub.py**

```
def sub(a, b):  
    return a - b
```

**my\_package/ \_\_init\_\_ .py****main.py**

```
from my_package.add import add
```

```
from my_package.sub import sub
```

```
x = 10
```

```
y = 4
```

```
print("Sum =", add(x, y))
```

```
print("Difference =", sub(x, y))
```

