1.

```
seconds = int(input("Enter time in seconds "))
print(f"{seconds // 3600:02}:{(seconds % 3600) // 60:02}:{seconds % 60:02}")
```

2.

```
import math
r = float(input("Enter the radius "))
print(f"Area: {math.pi * r**2}")
print(f"Circumference: {2 * math.pi * r}")
```

3.

```
 n = int(input("Enter a number”))
if num % 2 == 0:
print (“ Even”)
else:
print(“ Odd”)
```

4.

```
num1 = float(input("Enter the first number"))
num2 = float(input("Enter the second number"))

if num1 > num2:
    print(“num1 is greater than num2")
elif num1 < num2:
    print("num1 is less than num2")
else:
    print("num1 is equal to num2")
```

5.

```
import math
a, b, c = map(float, input("Enter coefficients a, b, c: ").split())
d = b**2 - 4*a*c
if d < 0:
    print("No Real Roots")
else:
    root1 = (-b + math.sqrt(d)) / (2*a)
    root2 = (-b - math.sqrt(d)) / (2*a)
    print(f"Roots: {root1}, {root2}")
```

6.

```
a, b, c = sorted(map(int, input("Enter sides of triangle ").split()))
print("Right-angled Triangle" if a**2 + b**2 == c**2 else "Not a Right-angled Triangle")
```

7.

```
x, y = map(int, input("Enter x and y coordinates").split())
if x > 0 and y > 0:
    print("Quadrant 1")
elif x < 0 and y > 0:
    print("Quadrant 2")
elif x < 0 and y < 0:
    print("Quadrant 3")
elif x > 0 and y < 0:
    print("Quadrant 4")
else:
    print("Origin")
```

8.

```
def sum_of_digits(n):
    total = 0
    while n > 0:
        total += n % 10
        n //= 10
num = int(input("Enter a number: "))
num = abs(num)
print(num)
```

9.

```
num = int(input("Enter a number"))
if num > 1 and all(num % i != 0 for i in range(2, int(num**0.5) + 1)):
    print("Prime")
else:
    print("Not Prime")
```

10.

```
n = int(input("Enter number of values "))
numbers = list(map(int, input("Enter numbers ").split()))
print(f"Sum of even numbers: {sum(x for x in numbers if x % 2 == 0)}")
```

11.

```
n = int(input("Enter a number"))
print(sum(x**3 for x in range(2, n+1, 2)))
```

12.

```
nums = [int(input(f"Enter number {i+1}: ")) for i in range(4)]
pos = [x for x in nums if x > 0]
neg = [x for x in nums if x < 0]
print(f"Positive Sum: {sum(pos)}, Average: {sum(pos)/len(pos)}")
```

```
print(f"Negative Sum: {sum(neg)}, Average: {sum(neg)/len(neg)}")
```

13.

```
def reverse_number(n):
    reversed_num = 0
    is_negative = n < 0
    n = abs(n)
 while n > 0:
        reversed_num = reversed_num * 10   + n % 10
        n //= 10

    return -reversed_num if is_negative else reversed_num
num = int(input("Enter a number"))
print(num)
```

14.

```
a, b = 0, 1
for _ in range(10):
    print(a, end=' ')
    a, b = b, a + b
```

15.

```
for num in range(2, 1000):
    if all(num % i != 0 for i in range(2, int(num**0.5) + 1)):
        print(num, end=' ')
```

16.

```
for i in range(5, 0, -1):
    print(' '.join(map(str, range(i, 0, -1))))
```

17.

```
n = int(input("Enter n: "))
for i in range(1, n+1):
    for j in range(1, 11):
        print(f"{i} x {j} = {i*j}")
    print()
```

18.

```
num = int(input("Enter a number "))
print("Armstrong Number" if num == sum(int(d)**len(str(num)) for d in str(num)) else "Not
Armstrong")
```

19.

```
numbers = list(map(int, input("Enter numbers: ").split()))
print(f"Even count: {sum(1 for x in numbers if x % 2 == 0)}")
print(f"Odd count: {sum(1 for x in numbers if x % 2 != 0)}")
```

20.

```
string = input("Enter a string: ")
print("Palindrome" if string == string[::-1] else "Not a Palindrome")
```

21.

```
n = int(input("Enter n: "))
print(2**(2*n) + n + 5)
```

22.

```
year = int(input("Enter year: "))
print("Leap Year" if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0) else "Not a
Leap Year")
```

23.

```
num = int(input("Enter a number: "))
factor = 2
while num > 1:
    if num % factor == 0:
        print(factor, end=' ')
        num //= factor
    else:
        factor += 1
```

24.

```
print([x for x in range(100, 1001) if sum(map(int, str(x))) % 9 == 0])
```

25.

```
x, y = map(int, input("Enter X and Y: ").split())
result = 1
for _ in range(y):
    result *= x
print(result)
```

26.

```
import math
```

```
x1, y1 = map(int, input("Enter x1, y1: ").split())
x2, y2 = map(int, input("Enter x2, y2: ").split())
print(f"Distance: {math.sqrt((x2-x1)**2 + (y2-y1)**2)}")
```

27.

```
low, high = map(int, input("Enter lower and upper limit: ").split())
print(sum(x for x in range(low, high+1) if x % 2 != 0))
```