# Conditional Practice Problems

**1.** Write a Python program to accept two integers and check whether they are equal or not. Sample input output:

| Input | Output |
|---|---|
| 15 15 | Number1 and Number2 are equal |
| 100 200 | Number1 and Number2 are not equal |

**2.** Write a Python program to check whether a given number is even or odd.

| Input | Output |
|---|---|
| 15 | 15 is an odd integer |
| 30 | 30 is an even integer |

**3.** Write a Python program to check whether a given number is positive or negative.

| Input | Output |
|---|---|
| 15 | 15 is a positive number |
| -100 | -100 is a negative number |

**4.** Write a Python program to find whether a given year is a leap year or not. .

| Input | Output |
|---|---|
| 2016 | 2016 is a leap year |
| 1993 | 1993 is not a leap year |
| 1600 | 1600 is not a leap year |

**5.** Write a Python program to read the age of a candidate and determine whether it is eligible for casting his/her own vote.

| Input | Output |
|---|---|
| 21 | Congratulation! You are eligible for casting your vote. |
| 17 | Sorry! You are not eligible for casting your vote. |

**6.** Write a Python program to read the value of an integer m and display the value of n is 1 when m is larger than 0, 0 when m is 0 and -1 when m is less than 0.

| Input | Output |
|---|---|
| 5 | 1 |
| 0 | 0 |
| -3 | -1 |

**7.** Write a Python program to accept the age of a person in years and categorize the person according to the following:

0 – 10: child
11-20: teenage
21-50: adult
51 and above: old

| Input | Output |
|---|---|
| 11 | teenage |
| 35 | adult |

**8.** Write a Python program to find the largest of three numbers.

| Input | Output |
|---|---|
| 12 25 52 | 52 |
| 100 50 20 | 100 |

**9.** Write a Python program to accept a coordinate point in a XY coordinate system and determine in which quadrant the coordinate point lies.
Test Data: 7 9
*Expected Output:*
The coordinate point (7,9) lies in the First quadrant.

| Input | Output |
|---|---|
| 7 9 | The coordinate point (7,9) lies in the First quadrant. |

| | |
|---|---|
| -11 20 | The coordinate point (-11,20) lies in the Second quadrant. |

**10.** Write a Python program to find the eligibility of admission for a professional course based on the following criteria:
Eligibility Criteria :
Marks in Maths >=65
Marks in Phy >=55
Marks in Chem>=50
Total in all three subject >=190 or Total in Maths and Physics >=140 ---------- Input the marks obtained in Physics :65 Input the marks obtained in Chemistry :51 Input the marks obtained in Mathematics :72 Total marks of Maths, Physics and Chemistry : 188 Total marks of Maths and Physics : 137
*Expected Output:*
The candidate is not eligible for admission.

**11.** Write a program in Python to read any Month Number in integer and display the number of days for this month.
Test Data:
7
*Expected Output:*
Month have 31 days

**12.** Write a program in Python to read any Month Number in integer and display Month name in the word.
Test Data:
4
*Expected Output:*
April

**13.** Write a Python program to read temperature in centigrade and display a suitable message according to temperature state below :
Temp < 0 then Freezing weather
Temp 0-10 then Very Cold weather
Temp 10-20 then Cold weather
Temp 20-30 then Normal in Temp

Temp 30-40 then Its Hot
Temp >=40 then Its Very Hot
Test Data:
42
*Expected Output:*
Its very hot.

**14.** Write a Python program to check whether a triangle is Equilateral, Isosceles or Scalene.
Test Data:
50 50 60
*Expected Output:*
This is an isosceles triangle.

**15.** Write a Python program to check whether a triangle can be formed by the given value for the angles.
Test Data:
40 55 65
*Expected Output:*
The triangle is not valid.

**16.** Write a Python program to check whether a character is an alphabet, digit or special character.
Test Data:
@
*Expected Output:*
This is a special character.

**17.** Write a Python program to check whether an alphabet is a vowel or consonant.
Test Data:
k
*Expected Output:*
The alphabet is a consonant.

**18.** Write a Python program to calculate profit and loss on a transaction. Input will consist of buying price and selling price.
Test Data:
500 700
*Expected Output:*
You can booked your profit amount : 200

**19**. Write a program in Python to read any digit, display in the word.
Test Data:
4
*Expected Output:*
Four

**20.** Write a program in Python to accept a grade and declare the equivalent description:

| **Grade** | **Description** |
|---|---|
| E | Excellent |
| V | Very Good |
| G | Good |
| A | Average |
| F | Fail |

Test Data:
Input the grade :A
*Expected Output:*
You have chosen : Average

**21.** Write a program in Python to read any day number in integer and display day name in the word.
Test Data:
4
*Expected Output:*
Thursday