# Anand Niketan
# Maninagar Campus

| Grade : VII | Subject : MATHEMATICS | Name : |
|---|---|---|
| **Syllabus:**<br>**Ch:16-Data Handling**<br>**Ch:12-Triangle and Its Properties** | **PT-III(Practice Worksheet)** | **PT-III(Written)-20 Marks**<br>**Notebook submission-10 marks**<br>**Subject Enrichment:**<br>**Mental Math -5 Marks**<br>**Math Lab -5 Marks**<br>**Dictation – 10 marks** |

## SECTION – A

**Q - 1. Solve the following.**

1. Is the given triplets can be the angles of a triangle?

   30°, 70°, 90°

2. Is it possible to draw triangles with the measurements given below 10.2 cm, 5.8cm and 4.5 cm.

3. A triangle in which any two of its sides are equal is called a _____triangle.

4. What is the probability of drawing a card from a pack of 52 cards?

5. The number of times an observation occurs in given data is called the _____of the observation

6. A coin is tossed twice. Write its sample space.

7. A coin is tossed 100 times in which head is obtained 52 times. On tossing the coin at random, find the probability of getting a tail.

8. A dice is thrown. What is the probability of getting number 5?

9. In a class test marks obtained out of 12 by students are as follows:

   6, 5, 8, 6, 7, 5, 6, 10, 4, 3 what is the range of the marks?

10. Find the mean of first three even numbers.

## SECTION-B

**Q – 2. Solve the following.**

1. Two angles of a triangle are of measures 60° and 75°. Find the measure of the third angle.

2. The angles of a triangle are in the ratio 5:4:3 find the measures of each angle.

3. The two interior opposite angles of a triangles are 60° and 80°. Find the measure of the exterior angle.

4. Find the arithmetic mean of the first four natural numbers.

## SECTION-C

**Q - 3. Solve the following.**

1. A three is broken at a height of 5m from the ground and its top touches the ground at a ground and its top touches the ground at a distance of 12m from the base of the tree. Find the original height of the tree. [Draw diagram]

2. The diagonals of a rhombus are 30 cm and 16 cm. Find its perimeter.

3. The weight (in kg) of 15 students of a class are as follows:

46, 42, 38, 35, 37, 43, 43, 32, 43, 43, 38, 42, 38, 46, 38.Find the median and mode of the data.

4. The following are the number of members in 20 families in a village 5, 7, 5, 1, 2, 5, 6, 7, 5, 4,

4, 6, 6, 7, 5, 5, 6, 6, 5, 4. Prepare a frequency table.

## SECTION – D

**Q - 4. Solve the following.**

1. The performance of the students in two class test (out of 20) is given, draw a double bar graph choosing an appropriate scale and answer the questions that follow**:**

| Subject | English | Hindi | Maths | Social. sc. | Gen.sc. |
|---|---|---|---|---|---|
| I Test | 12 | 10 | 16 | 18 | 8 |
| II Test | 16 | 12 | 12 | 14 | 16 |

a. In which subject has the students improved their performance most?

b. In which subject(s) has the performance been improved?

c. In which subject(s) has the performance gone down?

2. In the given ΔPQR, AB ‖ QR, If ∠ P= 70° ∠ P= 50°, Find:

a. ∠ PBA

b. ∠PAB

c. $\angle PQR$ (Draw the diagram)

3. One card is drawn from a well shuffled deck of 52 cards. What is the probability of :

a. drawing an ace?

b. a face card?