

9th October, 2024

CSS - 2016

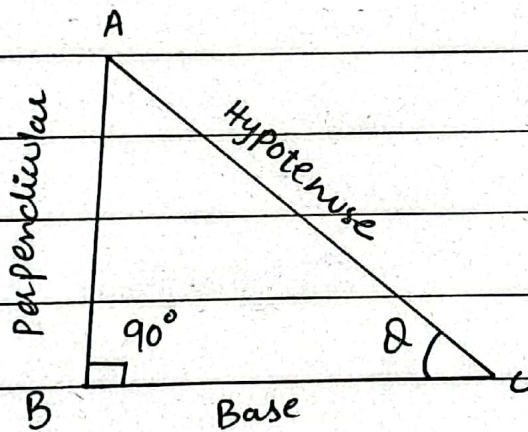
Q. 10 a) Define and draw the following

(i) Rightangle triangles (ii) Equilateral Triangles

Answer

(i) Rightangle Triangles:

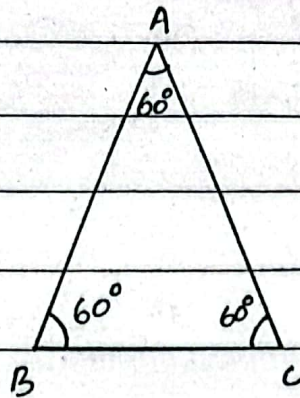
A triangle having one angle of 90° is called right angle triangle.



ii) Equilateral Triangles:

A triangle having all sides and

angles equal. (every angle equals to 60°).



sum of angles = 180°



(b)

There are nine students in a group having ages 15, 15, 16, 16, 16, 17, 17, 18, 19. Calculate mean, median, mode and range of their ages also define them.

Answer

Mean:

It is a statistical term also called as average represents average of the given data by adding all

the given data and dividing by total number of data provided.

Formula:

$$\text{Mean} = \frac{\text{Sum of all the observations}}{\text{No. of observations.}}$$

Mean for the ages of the students is calculated below:

Ages of students = 15, 15, 16, 16,
16, 17, 17, 18, 19

total data = 9

$$\text{Mean} = \frac{15+15+16+16+16+17+17+18+19}{9}$$

$$\text{Mean} = \frac{144}{9}$$

$$\boxed{\text{Mean} = 16}$$

Medium:

Medium is the statistical term used to represent the mid value in an arranged data.

Medium for the ages of students is calculated below
Ages of students = 15, 15, 16, 16, 16,
17, 17, 18, 19

Since the data is odd
So the medium of the student's ages is 16.

Mode:

Mode is the most repeated value in the given data.

Mode for the ages of student's is calculated below:
Ages of students = 15, 15, 16, 16, 16,
17, 17, 18, 19

Since 16 is repeated as many as 3 times making it most repeated than the other values.

So, the mode of students ages is 16.

Range:

Range is the difference between maximum and minimum value of the given data.

Range for student's ages is calculated below:

Student's ages = 15, 15, 16, 16, 16,
17, 17, 18, 19

Minimum value = 15

Maximum value = 19

Difference between minimum and maximum value = Range

$$= 19 - 15$$

$$= 4$$

Range for student's ages is 4.

