

Half Term Examinations
Tuition 2022-23

Name = _____
Class = _____
Date = _____

8 Class
Mathematics

MM = 40
Total Time = 2H

Instructions

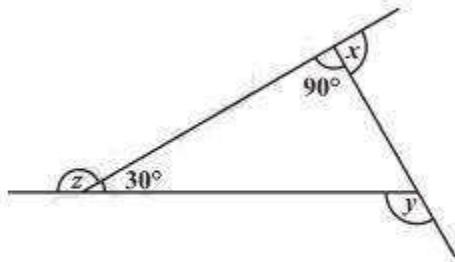
1. Do not write anything in the question paper
2. Write appropriate details on question paper.
3. Use blue and black pen for the write in the answer.
4. All the Questions are Mandatory .

Section 1 (10 Marks)

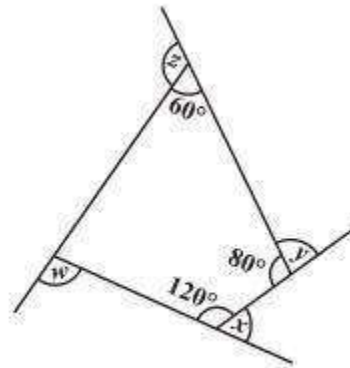
Q1. What is Rational Number. What properties are used in rational number and give one Example each.

Q2. Find the 10 rational number between $-\frac{2}{5}$ and $\frac{1}{2}$ and draw any one rational number in the number line.

Q3.



(a) Find $x + y + z$



(b) Find $x + y + z + w$

Q4. How many sides does a regular polygon have if the measure of an exterior angle is 24° ?

Q5. Write a Pythagorean triplet whose one member is.

- i. 6
- ii. 14

Section 2 (15 Marks)

Q1. A VCR and TV were bought for ₹ 8,000 each. The shopkeeper made a loss of 4% on the VCR and a profit of 8% on the TV. Find the gain or loss percent on the whole transaction.

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Q2. I have a total of ₹300 in coins of denomination ₹1, ₹2 and ₹5. The number of ₹2 coins is 3 times the number of ₹5 coins. The total number of coins is 160. How many coins of each denomination are with me?

Q3. One of the two digits of a two-digit number is three times the other digit. If you interchange the digits of this two-digit number and add the resulting number to the original number, you get 88. What is the original number?

Q4. The denominator of a fraction exceeds the numerator by 5. If 3 be added to both, the fraction becomes $\frac{3}{4}$. Find the fraction.

Q5. The weekly wages (in ₹) of 30 workers in a factory are:

830, 835, 890, 810, 835, 836, 869, 845, 898, 890, 820, 860, 832, 833, 855, 845, 804, 808, 812, 840, 885, 835, 835, 836, 878, 840, 868, 890, 806, 840.

Using tally marks, make a frequency table with intervals as 800 – 810, 810 – 820 and so on.

Draw a histogram for the frequency table made for the data in Question 3 and answer the following questions.

(i) Which group has the maximum number of workers?

(ii) How many workers earn ₹ 850 and more?

(iii) How many workers earn less than ₹ 850?

Section 3 (15 Marks)

(Do any three Questions)

Q1. Hasan buys two kinds of cloth materials for school uniforms, shirt material that costs him ₹50 per metre and trouser material that costs him ₹90 per metre. For every 3 meters of the shirt material he buys 2 metres of the trouser material. He sells the materials at 12% and 10% profit respectively. His total sale is ₹36,600. How much trouser material did he buy?

Q2. Arif took a loan of ₹ 80,000 from a bank. If the rate of interest is 10% per annum, find the difference in amounts he would be paying after $1\frac{1}{2}$ years if the interest is

(i) Compounded annually

(ii) Compounded half yearly

Q3. Find the amount and the compound interest on ₹ 10,000 for $1\frac{1}{2}$ years at 10% per annum, compounded half yearly. Would this interest be more than the interest he would get if it was compounded annually?

Q4. A milkman sold two of his buffaloes for ₹ 20,000 each. On one he made a gain of 5% and on the other a loss of 10%. Find his overall gain or loss.