

# **CBSE Sample Paper Class 7 Maths Half Yearly Set 5**

**SUBJECT: MATHEMATICS CLASS : VII**

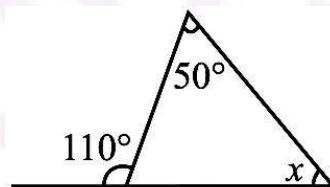
**MAX. MARKS : 80  
DURATION : 3 HRS**

## **General Instructions:**

- (i). All questions are compulsory.
- (ii). This question paper contains **30** questions divided into four Sections A, B, C and D.
- (iii). **Section A** comprises of 6 questions of **1 mark** each. **Section B** comprises of 6 questions of **2 marks** each. **Section C** comprises of 10 questions of **3 marks** each and **Section D** comprises of 8 questions of **4 marks** each.
- (iv). Use of Calculators is not permitted

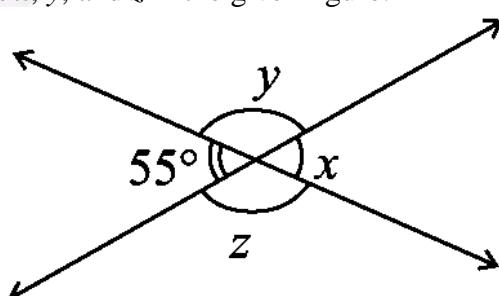
## **SECTION – A**

1. Find the median of the data: 24, 36, 46, 17, 18, 25, 35
2. Evaluate:  $(-31) \div [(-30) + (-1)]$
3. Find the ratio of 15 kg to 210 g
4. Express 7 rupees 7 paise as rupees using decimals.
5. Find the angle which is equal to its complement.
6. Find angle  $x$  in the adjoining figure:



## **SECTION – B**

7. Solve:  $12p - 5 = 25$
8. A school team won 6 games this year against 4 games won last year. What is the percent increase?
9. Find the values of the angles  $x$ ,  $y$ , and  $z$  in the given figure:



10. How many  $\frac{2}{3}$  kg pieces can be cut from a cake of weight 4 kg?

11. If  $\triangle ABC \cong \triangle FED$  under the correspondence  $ABC \leftrightarrow FED$ , write all the corresponding congruent parts of the triangles.

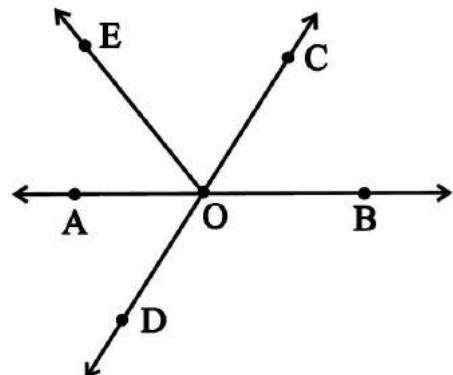
12.  $\triangle ABC$  is right-angled at C. If  $AC = 5$  cm and  $BC = 12$  cm find the length of AB.

### SECTION – C

13. The runs scored in a cricket match by 11 players is as follows:

6, 15, 120, 50, 100, 80, 10, 15, 8, 10, 15

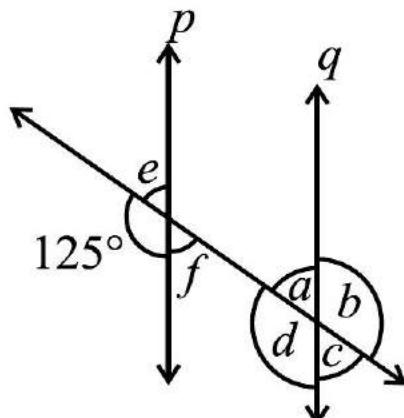
Find the mean, mode and median of this data.



14. In the adjoining figure, identify:

- (i) Five pairs of adjacent angles. (ii) Three linear pairs.
- (iii) Two pairs of vertically opposite angles.

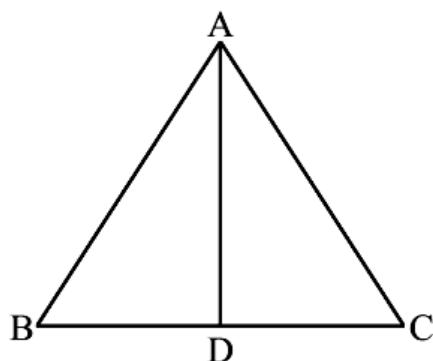
15. In the adjoining figure,  $p \parallel q$ . Find the unknown angles.



16. People of Sundargram planted a total of 102 trees in the village garden. Some of the trees were fruit trees. The number of non-fruit trees were two more than three times the number of fruit trees. What was the number of fruit trees planted? What are the benefits of eating fruits?

17. A certain freezing process requires that room temperature be lowered from  $40^\circ\text{C}$  at the rate of  $5^\circ\text{C}$  every hour. What will be the room temperature 10 hours after the process begins?

18. In the below figure,  $AB = AC$  and D is the mid-point of BC . Prove that (i)  $\triangle ADB \cong \triangle ADC$   
(ii)  $\angle B = \angle C$



19. Find  $\frac{3}{4}$  of (i) 36 (ii) 64 (iii) 120

20. An article was sold for Rs 250 with a profit of 5%. What was its cost price?

21. The sum of three consecutive integers is 5 more than the smallest of the integers. Find the integers.

22. A tree is broken at a height of 5 m from the ground and its top touches the ground at a distance of 12 m from the base of the tree. Find the original height of the tree.

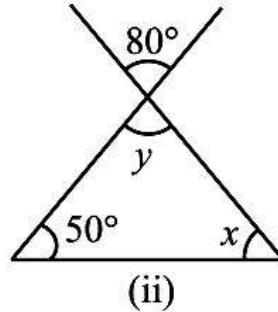
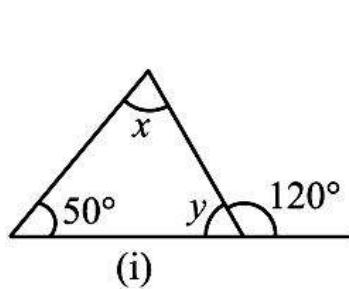
### **SECTION – D**

23. The performance of students in 1st Term and 2nd Term is given. Draw a double bar graph choosing appropriate scale and answer the following:

Subject	English	Hindi	Maths	Science	S.Science
1st Term (M.M. 100)	62	72	88	81	73
2nd Term (M.M. 100)	70	65	95	85	75

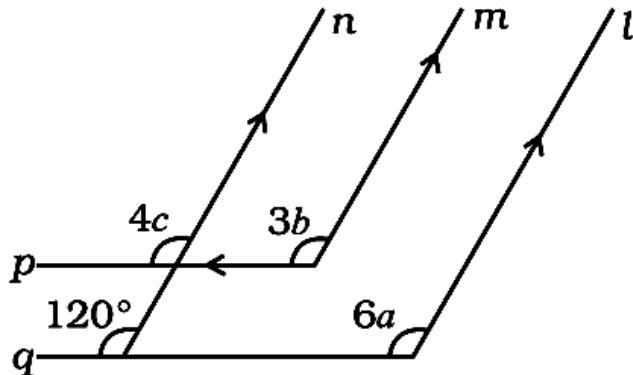
- (i) In which subject, has the child improved his performance the most?
- (ii) In which subject is the improvement the least?
- (iii) Has the performance gone down in any subject?.

24. Find the values of the unknowns  $x$  and  $y$  in the following diagrams:



25. A man travelled two fifth of his journey by train, one-third by bus, one-fourth by car and the remaining 3 km on foot. What is the length of his total journey?

26. In the below figure,  $l$ ,  $m$  and  $n$  are parallel lines, and the lines  $p$  and  $q$  are also parallel. Find the values of  $a$ ,  $b$  and  $c$ .



27. In a test (+5) marks are given for every correct answer and (-2) marks are given for every incorrect answer. (i) Radhika answered all the questions and scored 30 marks though she got 10 correct answers. (ii) Jay also answered all the questions and scored (-12) marks though he got 4 correct answers. How many incorrect answers had they attempted?

28. Anita takes a loan of Rs 5,000 for donating books to the poor, at 15% per year as rate of interest. Find the interest she has to pay at end of three years. What value depicted from this?

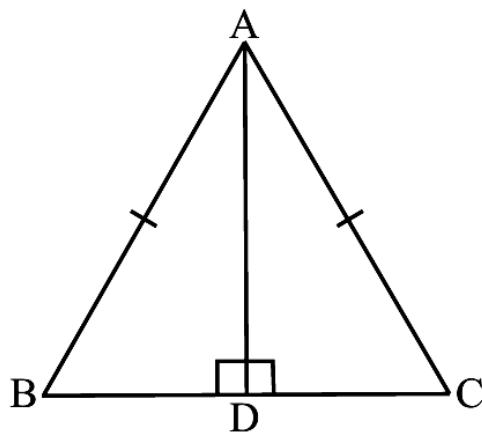
29. In the below figure, ABC is an isosceles triangle with  $AB = AC$  and AD is one of its altitudes.

(i) State the three pairs of equal parts in  $\Delta ADB$  and  $\Delta ADC$ .

(ii) Is  $\Delta ADB \cong \Delta ADC$ ? Why or why not?

(iii) Is  $\angle B = \angle C$ ? Why or why not?

(iv) Is  $BD = CD$ ? Why or why not?



30. A square and an equilateral triangle have a side in common. If side of triangle is  $\frac{4}{3}$  cm long, find the perimeter of figure formed.

