

KENDRIYA VIDYALAYA SANGATHAN, HYDERABAD REGION
SAMPLE PAPER 01 FOR HALF YEARLY EXAM (2017-18)

SUBJECT: MATHEMATICS

BLUE PRINT FOR HALF YEARLY EXAM: CLASS VIII

Unit/Topic	VSA (1 mark)	Short answer (2 marks)	Short answer (3 marks)	Long answer (4 marks)	Total
Rational Numbers	1(1)	1(2)	1(3)	1(4)	4(10)
Linear equations in one variable	1(1)	1(2)	1(3)	1(4)	4(10)
Understanding Quadrilaterals	1(1)	1(2)	1(3)	1(4)	4(10)
Practical Geometry	--	--	1(3)	1(4)	2(7)
Data Handlings	1(1)	1(2)	1(3)	1(4)	4(10)
Squares and Square Roots	1(1)	1(2)	1(3)	1(4)	4(10)
Cubes and Cube Roots	--	--	2(6)	1(4)	3(10)
Comparing Quantities	1(1)	1(2)	2(6)	1(4)	5(13)
Total	6(6)	6(12)	10(30)	8(32)	30(80)

MARKING SCHEME FOR HALF YEARLY EXAM

SECTION	MARKS	NO. OF QUESTIONS	TOTAL
VSA	1	6	08
SA – I	2	6	12
SA – II	3	10	30
LA	4	8	32
GRAND TOTAL			80

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SUBJECT: MATHEMATICS

MAX. MARKS : 80

CLASS : VIII

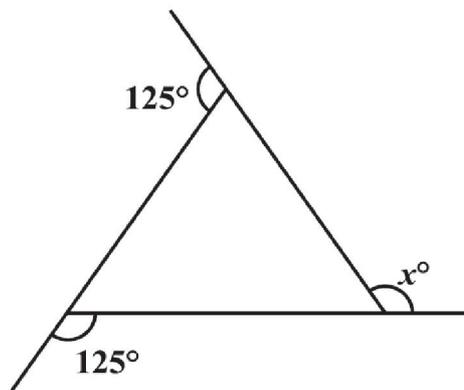
DURATION : 3 HRS

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. 72% of 25 students are good in mathematics. How many are not good in mathematics?
2. A bag has 4 red balls and 2 yellow balls. (The balls are identical in all respects other than colour). A ball is drawn from the bag without looking into the bag. What is probability of getting a red ball?
3. Write the additive inverse of $\frac{-7}{19}$.
4. Find the solution of $2x - 3 = 7$.
5. Find x in the adjoining figure:
6. Find the square of the number 32.



SECTION – B

7. Find two rational numbers between $\frac{3}{5}$ and $\frac{3}{4}$.
8. Find the number of sides of a regular polygon whose each exterior angle has a measure of 45° .
9. After 12 years, Kanwar shall be 3 times as old as he was 4 years ago. Find his present age.
10. Find the smallest square number which is divisible by each of the numbers 6, 9 and 15.
11. The price of a scooter was Rs 34,000 last year. It has increased by 20% this year. What is the price now?
12. The weekly wages (in Rs) 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.

SECTION – C

13. Represent these numbers on the number line: (i) $\frac{7}{4}$ (ii) $-\frac{5}{6}$ (iii) $\frac{3}{5}$

14. Construct a quadrilateral PQRS where PQ = 4 cm, QR = 6 cm, RS = 5 cm, PS = 5.5 cm and PR = 7 cm.

15. Find CI on Rs 12600 for 2 years at 10% per annum compounded annually.

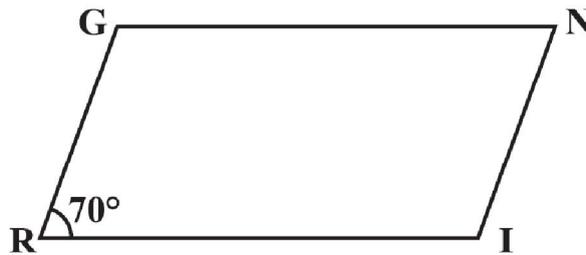
16. Solve: $\frac{x+1}{2x+3} = \frac{3}{8}$

17. The marked price of an article is Rs 500. The shopkeeper gives a discount of 5% and still makes a profit of 25%. Find the cost price of the article.

18. Find the cube root of 13824 by prime factorisation method.

19. Parikshit makes a cuboid of plasticine of sides 5 cm, 2 cm, 5 cm. How many such cuboids will he need to form a cube?

20. In a parallelogram RING, (see below Figure) if $m\angle R = 70^\circ$, find all the other angles.



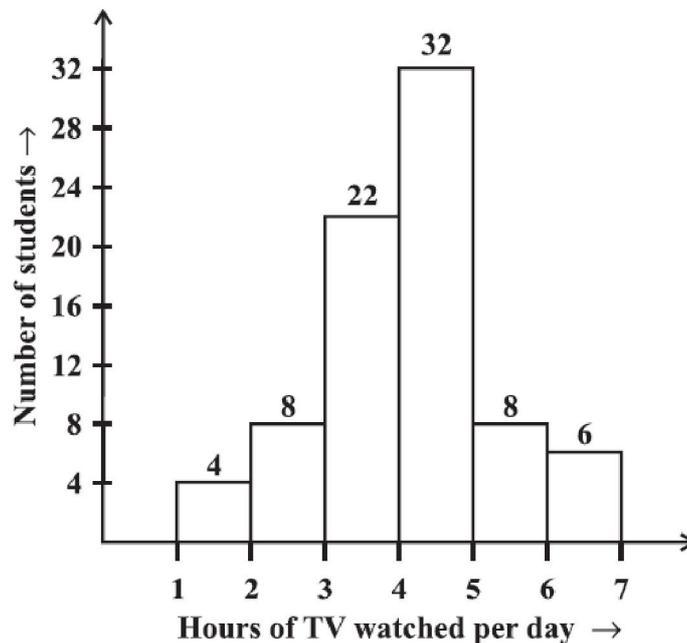
21. The number of hours for which students of a particular class watched television during holidays is shown through the given graph.

Answer the following.

(i) For how many hours did the maximum number of students watch TV?

(ii) How many students watched TV for less than 4 hours?

(iii) How many students spent more than 5 hours in watching TV?



22. 2025 plants are to be planted in a garden in such a way that each row contains as many plants as the number of rows. Find the number of rows and the number of plants in each row.

SECTION – D

23. The digits of a two-digit number differ by 3. If the digits are interchanged, and the resulting number is added to the original number, we get 143. What can be the original number?
24. During a mass drill exercise, 6250 students of different schools are arranged in rows such that the number of students in each row is equal to the number of rows. In doing so, the instructor finds out that 9 children are left out. Find the number of children in each row of the square.
25. Difference of two perfect cubes is 189. If the cube root of the smaller of the two numbers is 3, find the cube root of the larger number.
26. A mother and her two daughters got a room constructed for Rs. 62,000. The elder daughter contributes $\frac{3}{8}$ of her mother's contribution while the younger daughter contributes $\frac{1}{2}$ of her mother's share. How much do the three contribute individually?
27. In a parallelogram PQRS, the bisectors of $\angle P$ and $\angle Q$ meet at O. Find $\angle POQ$.
28. Construct a quadrilateral ABCD, where $AB = 4$ cm, $BC = 5$ cm, $CD = 6.5$ cm and $\angle B = 105^\circ$ and $\angle C = 80^\circ$.
29. The population of a place increased to 54,000 in 2003 at a rate of 5% per annum
 (i) Find the population in 2001.
 (ii) What would be its population in 2005?
 (iii) Write any two effects of high populations?
30. A group of 360 people were asked to vote for their favourite season from the three seasons rainy, winter and summer.
 (i) Which season got the most votes?
 (ii) Find the central angle of each sector.
 (iii) Draw a pie chart to show this information.

Season	No. of votes
Summer 	90
Rainy 	120
Winter 	150