

**KENDRIYAVIDYALAYANDA PUNE, MAHARASHTRA**  
**PAPER FOR HALF YEARLY EXAM (2018-19)**

**SUBJECT: MATHEMATICS**

**MAX. MARKS: 80**

**CLASS: VIII**

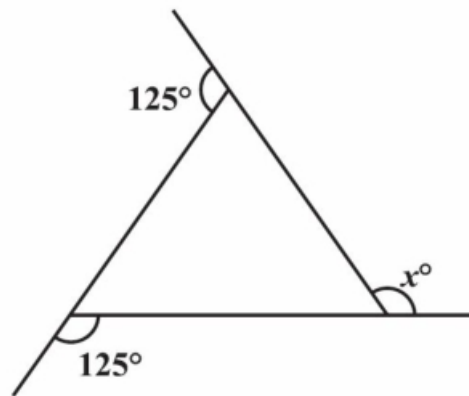
**DURATION: 3 HRS**

**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 Calculator is not permitted

**SECTION-A**

1. 80% of 25 students are good in mathematics. How many students are not good in mathematics?
2. A bag has 6 red balls and 3 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  $-\frac{9}{19}$ .
4. Find the solution of  $2x - 3 = \frac{5}{8}$ .
5. Find  $x$  in the adjoining figure:
6. Find the square of the number 45.



**SECTION-B**

7. Find two rational numbers between  $\frac{5}{3}$  and  $-\frac{3}{4}$ .
8. Find the number of sides of a regular polygon whose each exterior angle has a measure of  $36^\circ$ .
9. After 12 years, Prasant will 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 11.
11. The price of a television was Rs 44,000 last year. It has increased by 15% 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)  $\frac{4}{4}$  (ii)  $-\frac{6}{6}$  (iii)  $\frac{6}{5}$

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

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

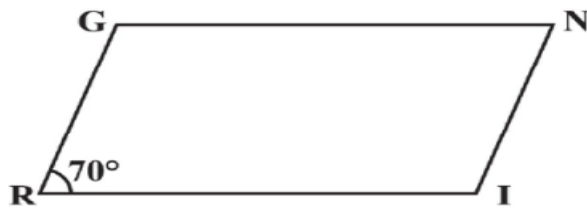
16. Solve:  $\frac{x+2}{2x-3} = \frac{8}{3}$

17. The marked price of 5 articles is Rs 500. The shopkeeper gives a discount of 5%. Find price of each article.

18. Find the cube root of 13824  
(a) prime factorisation method.  
(b) estimation method.

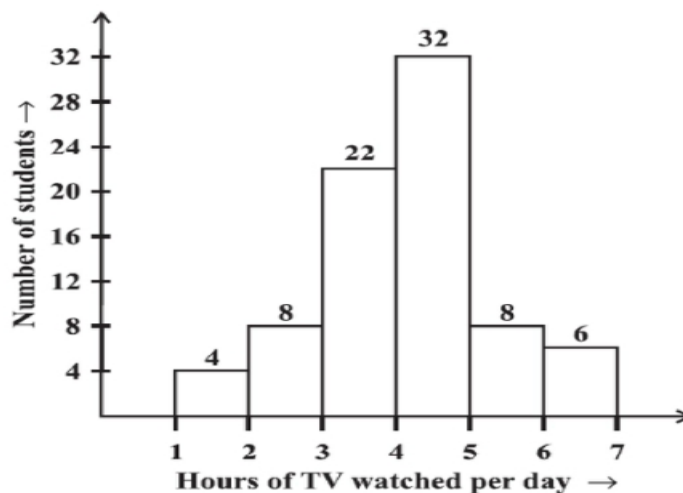
19. Parikshit makes a cuboid of plasticine of sides 7cm, 2cm, 3cm. How many such cuboids will he need to form a cube?

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 columns. Find

(a) students left out after Arrangement.

(b) students to be added to left out students to make rows and column equal.

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. 72,000. The elder daughter contributes  $\frac{3}{18}$  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=4cm, BC=5cm, CD=6.5cm and  $\angle B=105^\circ$  and  $\angle C=80^\circ$ .

29. The population of a place increased to 50,000 in 2003 at a rate of 10% per annum

(i) Find the population in 2001.




(ii) What would be its population in 2005?

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