

**CBSE Board
Class VIII Mathematics
Term I
Sample Paper 2**

Time: 2 ½ hours

Total Marks: 80

General Instructions:


1. All questions are **compulsory**.
2. **Section A** comprises of **12** questions carrying 1 mark each.
3. **Section B** comprises of **12** questions carrying 2 marks each.
4. **Section C** comprises of **8** questions carrying 3 marks each.
5. **Section D** comprises of **5** questions carrying 4 marks each.

**Section A
(Questions 1 to 12 carry 1 mark each)**

1. Equation $2x = 7 - \frac{3}{2}x$, with variables on one side can be expressed as
 - A. $\frac{1}{2}x = 7$
 - B. $\frac{7}{2}x = 7$
 - C. $7x = 7$
 - D. $2x = 7$
2. In the representation of rational numbers, the number line extends _____.
 - A. Indefinitely on both sides of 0
 - B. Indefinitely to the right side of zero
 - C. Indefinitely to the right side of 1
 - D. Indefinitely to the left side of zero
3. An octagon is made up of ____ sides.
 - A. 8
 - B. 10
 - C. 6
 - D. 5
4. If the cost of an item is increased from Rs 50 to Rs 55 then the percentage increase in cost is
 - A. 5%
 - B. 10%
 - C. 20%
 - D. 15%

5. The sum $1 + 3 + 5 + 7 + 9 + 11 + 13 + 15 + 17$ is
- 7^2
 - 8^2
 - 9^2
 - 10
6. The smallest number by which $(4)^2 \sqrt[3]{1000}$ must be divided to make it a perfect cube is ____.
- 20
 - 10
 - 5
 - 2
7. Which one of the following is not a parallelogram?
- Rhombus
 - Trapezium
 - Rectangle
 - Square
8. Number of Red Rome apple is

Varities of Apples in a food store	
Red Delicious	  
Golden Delicious	  
Red Rome	   
McIntosh	 
Jonathan	   

 = 10 apples

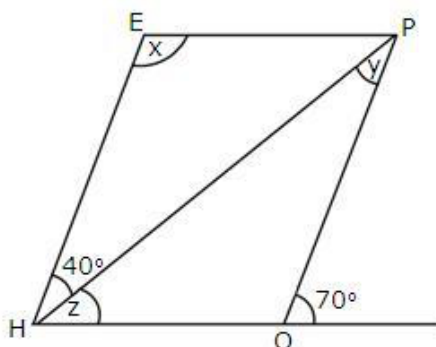
- 40
 - 45
 - 30
 - 35
9. In a parallelogram, if one angle is 50° , then its adjacent angle will be ____.
- 130°
 - 50°
 - 100°
 - 25°

10. The probability of an event always lies between ____ .
 A. 0 and 2
 B. 0 and 1
 C. 0 and $\frac{1}{2}$
 D. -1 and 1
11. Using the pattern, $2^2 = 4$
 $20^2 = 400$
 We get $2000^2 =$
 A. 40000
 B. 4000000
 C. 400000
 D. 40000000
12. A shopkeeper announces a stock clearance sale by giving a discount of 50% + 50%.
 If marked price of an article is Rs. 1200 then its sale price will be
 A. Rs 200
 B. Rs 350
 C. Rs 300
 D. Rs 400

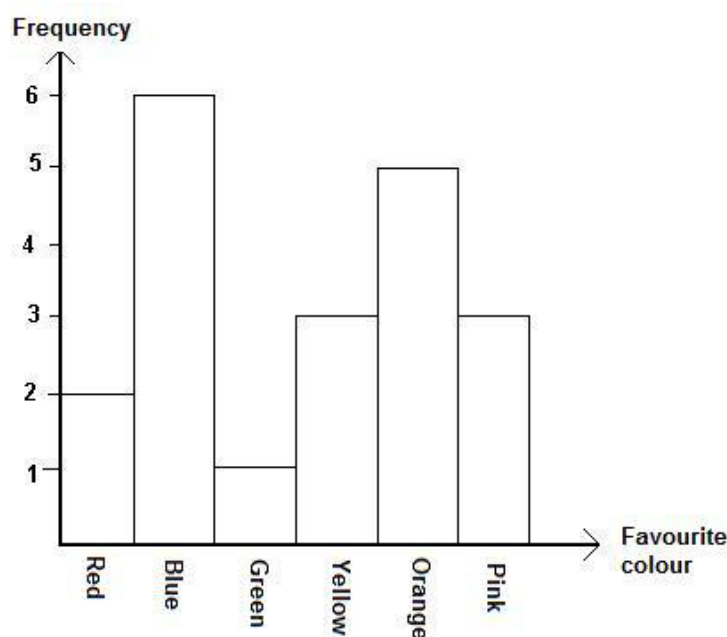
Section B

(Questions 13 to 24 carry 2 marks each)

13. Find the multiplicative inverse of the following:
 (i) $\frac{-5}{8} \times \frac{-3}{7}$ (ii) $-1 \times \frac{-2}{5}$
14. In a two-digit number, the unit's digit is 7 more than the ten's digit. Sum of the digits is half of the whole number. Find the digits and number.
15. The given figure HOPE is a parallelogram. Find the angle measures x, y and z. Also, state the properties used.



16. There are 35 students in a class, out of which 20 are boys and 15 are girls. From these students one is chosen at random. What is the probability that the chosen student is
- a boy
 - a girl
17. Find the square of the number 82 using the property $(a + b)^2 = a^2 + b^2 + 2ab$.
18. The given bar graph shows the favourite colours of 20 students in a class. How many more students favour orange colour than green?



19. The cost of a TV set at a showroom was Rs. 36500. The sales tax charged was 8%. Find the bill amount.
20. Write first 4 triangular numbers and verify that sum of two consecutive triangular numbers is a square number.
21. Solve for x:
 $3(2x - 1) = 2(x + 4) + 1$
22. Square root of 18.5 lies between which numbers?
23. The number of students in a school is increased by 35%. If originally the number was 4000, then the number of students now is:
24. In a collection of 35 lotteries, there are 10 prizes and 25 blanks. A lottery is drawn at random. What is the probability of getting a prize?

Section C

(Questions 25 to 32 carry 3 marks each)

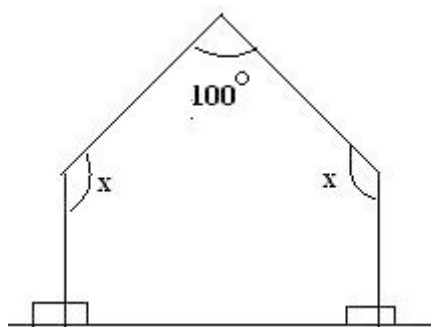
25. The following table shows the number of visitors to a park for the months January to March.

Month	January	February	March
No. of Visitors	150	300	250

- Construct a bar graph representing the given data.
 - What is the percentage increase in visitors in March as compared to January?
 - What percentage of visitors came in February as compared with total number of visitors over the three months?
26. A shopkeeper sells one transistor for Rs. 840 at a gain of 20% and another for Rs. 960 at a loss of 4%. What is his total gain or loss percent?
27. Solve for x:

$$\frac{x + 0.25}{3} - x = 0.5$$
28. Find the compound interest on Rs 5000 for 1 year at 8% per annum, compounded half-yearly.
29. Use the number line to work out -4×3 .
30. The denominator of a fraction is 1 more than double of the numerator. If both the numerator and denominator are increased by 4; the fraction becomes $\frac{3}{5}$, find the fraction.

31. Find x in the figure?



32. Construct a square whose side measure 4.7 cm. Write the steps of construction.

Section D**(Questions 33 to 37 carry 4 marks each)**

33. Mr. Ranjan is seven times as old as his son. 10 years hence, he will be three times as old as his son. Find their ages.
34. Construct a parallelogram ABCD in which $AB = 6$ cm, $BC = 4.5$ cm and diagonal $AC = 6.8$ cm.
35. A man with a monthly salary of Rs. 10800 plans his budget for a month as given below:

Item	Food	Rent	Education	Savings	Misc
Amount	3150	2100	1950	2400	1200

Represent the above data by a pie chart.

36. The measures of two adjacent angles of a parallelogram are in the ratio 3 : 2. Find the measure of each of the angles of the parallelogram.
37. Is the number 2048 a perfect square? If not, then by which number should it be multiplied so as to get a perfect square?