

Budha Dal Public School Patiala (14 Sept. 2017)

**UNIT - I
Class-VIII
Mathematics
Set - B**

Time: 3 hrs.

Marks: 80

Section - A

Q1 to Q 6 carry 1 mark each.

Q1. Multiply $\frac{-7}{16}$ by the reciprocal of $\frac{6}{13}$.

Q2. Solve: $\frac{x}{3} + 1 = 7$

Q3. Evaluate: $(-4)^{-2} \times (2)^2$

Q4. Construct an angle of 75° with the help of compass.

Q5. Find the measure of each exterior angle of a regular polygon of 15 sides.

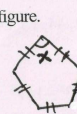
Q6. How many numbers lie between squares of 90 and 91.

Section - B

Q7 to Q 12 carry 2 marks each.

Q7. Find the angle measure

x in the figure.

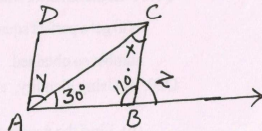


Q8. Subtract $5x^2 - 6y^2 + 7y - 4$ from $7x^2 - 5xy + 10y^2 + 6x - 4y$

Q9. find square root of 9604 by prime factorization.

Q26. ABCD is a parallelogram

Find x, y, z



Q27. 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 no., you get 88. What is the original number.

Q28. The no. of students in a hostel, speaking different languages is given below. Display the data in pie chart.

Language	Hindi	English	Marthi	Tamil	Bengali	Total
No. of students	40	12	8	5	7	72

Q29. Show that: $(3x + 7)^2 - 84x = (3x - 7)^2$

Q30. Find the square root of 390625 by long division.

Q10. If the measures of two adjacent angles of a parallelogram are equal. Find the measure of each of the angle of the parallelogram.

Q11. sum of two numbers is 84. If one exceeds the other by 12, find the numbers.

Q12. Express the following numbers in usual form:

- (i) 4.02×10^{-3} (ii) 3×10^{-7}

Section - C

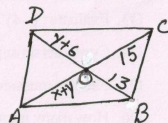
Q13 to Q 22 carry 3 marks each.

Q13. A grandfather is ten times older than his granddaughter. He is also 54 years older than her. Find their present ages.

Q14. Construct a rhombus whose diagonals are 4.8cm and 6.3cm.

Q15. Find x and y in the parallelogram

ABCD (state the property used).



Q16. Represent the following data into frequency distribution table using class intervals 0-10 and 10-20 etc. then draw histogram

- 21, 10, 30, 22, 33, 5, 37, 12, 25, 42, 50, 39, 26, 32, 18, 27, 28, 19, 29, 35, 31, 24, 36, 18, 20, 38, 22, 44, 16, 24, 27, 39, 28, 49, 29, 32, 23, 31, 21, 48

Q17. (a) Evaluate by using identity $153^2 - 147^2$

(b) Evaluate $\frac{2^{-2} \times 5^2}{3^{-1}}$

Q18. Simplify: $(x - 5)(x + 5) + 25$

Q19. Find the smallest whole number by which 1008 should be multiplied so as to get a perfect square number. Also find the square root of the square number so obtained.

Q20. a) Using identity, evaluate 102×98

(b) Find the product $\left(\frac{7}{3}x^2y\right) \times \left(\frac{-9}{10}xy^2\right)$

Q21. Find any three rational numbers between $\frac{1}{4}$ and $\frac{1}{5}$

Q22. How many sides does a regular polygon have if each of its interior angles is 150° .

Section - D

Q23 to Q 30 carry 4 marks each.

Q23. Fill in the blanks:

- i) _____ is multiplicative identity for rational no's.
 ii) Additive inverse of $\frac{7}{8}$ is _____.
 iii) _____ is additive identity for addition of rational no's.
 iv) _____ has no reciprocal.

Q24. Solve: $\frac{5x-1}{3} + 2 = \frac{x+2}{5}$

Q25. construct a quadrilateral ABCD, where $AB = 4\text{cm}$, $BC = 5\text{cm}$, $CD = 6.5\text{cm}$, $\angle B = 105^\circ$ and $\angle C = 80^\circ$