Sainik School Korukonda
Vacation Home Work (Oct 2025) - 2025-26
Class 8 & Section B

Subject	Vacation Task Assigned Specify in detail	Teacher Signature
English	Practice reading with intonation (ups & downs of voice) at home. Record the narration of story to parents and send a mail to Mr. PVGK. Email ID:- pvgkkumar@gmail.com	
Telugu	1) లాడేయుతో బొమ్మ గీసి, (10) పది వాక్యాలు రాయండి. 2) మేకపోతు గాంభీర్యం లో చిత్రాలు గీసి, వాటి మధ్య జరిగిన సంభాషణను రాయండి. 3) కొచ్చిరి చెట్టు బొమ్మ గీసి, (10) పది వాక్యాలు రాయండి.	
Hindi	किसी भी प्रसिद्ध खिलाड़ी का चित्र चिपकाकर 5-10 पन्नों का प्रोजेक्ट A-4 Size sheets में बनाएँ या फिर (OR) किसी भी जानकारी के विषय पर 5-10 पन्नों का प्रोजेक्ट A-4 Size Sheets में बनाएँ	
Maths	(i) Solve the Question Paper of Mid-Term again. (ii) Solve the 5 Practice worksheets provided in Parents' Group (WHATSAPP GROUP)/School Website.	24/9.
Gen Sc Importance of Conservation of Biosphere (5-8 pages)	BIO → * Importance of life supporting climate and weather * Importance of conservation of habitat * Importance of conservation of wildlife * Importance of afforestation strategies * 5 Best Biosphere reserves, National parks & Sanctuaries in world, in India, in your state (Endure) * Write about Endemic species in these. * Give 5 suggestion on conservation of animals and reducing deforestation	
Social Sc	CIVICS:- (i) Read "Confronting Marginalisation" Chapter and write your review on A4 Sheets (3 Sheets) (ii) Prepare a chart on Chap-7 Public Facilities by pasting newspaper articles, pictures etc. HISTORY:- Take a topic about Punjab state and take a printout in one A4 sheet and write/type about it in another. Both are to be LAMINATED	
Physics	Prepare a working model	
Chemistry	(1) 1 to 100 elements with symbols, atomic number and mass number. (2) Important compounds formed by Sodium and Calcium with uses.	

CHAPTER 05 SQUARES AND SQUARE ROOTS

SUBJECT: MATHEMATICS | **MAX. MARKS : 40**
CLASS : VIII | **DURATION : 1½ hr**

General Instructions:

(i). **All** questions are compulsory.
(ii). This question paper contains 20 questions divided into five Sections A, B, C, D and E.
(iii). **Section A** comprises of **10 MCQs** of **1 mark** each. **Section B** comprises of 4 questions of **2 marks** each. **Section C** comprises of 3 questions of **3 marks** each. **Section D** comprises of 1 question of **5 marks** each and **Section E** comprises of 2 Case Study Based Questions of **4 marks** each.
(iv). There is no overall choice.
(v). Use of Calculators is not permitted

SECTION – A

Questions 1 to 10 carry 1 mark each.

1. The square root of 0.000025 is:
(a) 0.005 (b) 0.0005 (c) 0.025 (d) 0.00025

2. How many natural numbers lie between 5^2 and 6^2?
(a) 9 (b) 10 (c) 11 (d) 12

3. Find the number whose square is 7569:
(a) 87 (b) 86 (c) 88 (d) 89

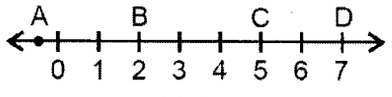
4. A square board has an area of 144 square units. How long is each side of the board?
(a) 11 units (b) 12 units (c) 13 units (d) 14 units

5. If one member of a Pythagorean triplet is 2m, then the other two members are
(a) m, $m^2 + 1$ (b) $m^2 + 1$, $m^2 - 1$ (c) m^2, $m^2 - 1$ (d) m^2, $m + 1$

6. The hypotenuse of a right triangle with its legs of lengths $3x$ and $4x$ is
(a) $5x$ (b) $7x$ (c) $16x$ (d) $25x$

7. The square of 12.5 is:
(a) 156.25 (b) 125.25 (c) 162.25 (d) 152.25

8. Which letter best represents the location of $\sqrt{25}$ on a number line?



(a) A (b) B (c) C (d) D

In the following questions 9 and 10, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

9. **Assertion (A):** Every perfect square ends with 0, 1, 4, 5, 6, or 9.
Reasoning (R): The last digit of a perfect square is always 0, 1, 4, 5, 6, or 9.

10. **Assertion (A):** Between 50 and 60, the perfect square number is 54.
Reasons (R): A perfect square is a number that can be expressed as the product of an integer by itself or as the second exponent of an integer.

SECTION – B

Questions 11 to 14 carry 2 marks each.

11. Find the value of $\sqrt{248+\sqrt{52+\sqrt{144}}}$

12. (i) Express 49 as the sum of 7 odd numbers.
(ii) Express 121 as the sum of 11 odd numbers.

13. Find the side of a square whose area is equal to the area of a rectangle with sides 6.4 m and 2.5 m.

14. What is the least number should be subtracted from 1385 to get a perfect square ? Also find the square root of the perfect square.

OR

Write Pythagorean triplet of 18.

SECTION – C

Questions 15 to 17 carry 3 marks each.

15. Rahul walks 12 m north from his house and turns west to walk 35 m to reach his friend's house. While returning, he walks diagonally from his friend's house to reach back to his house. What distance did he walk while returning ?

16. There are 500 children in a school. For a P.T. drill they have to stand in such a manner that the number of rows is equal to number of columns. How many children would be left out in this arrangement.

17. If the area of a square picture is 20.25 cm^2, find the length of its side.

OR

Find the least number that must be added to 1500 so as to get a perfect square. Also find the square root of the perfect square.

SECTION – D

Questions 18 carry 5 marks each.

18. Find the smallest square number which is exactly divisible by 4, 9 and 10. Also find the square root of the square number.

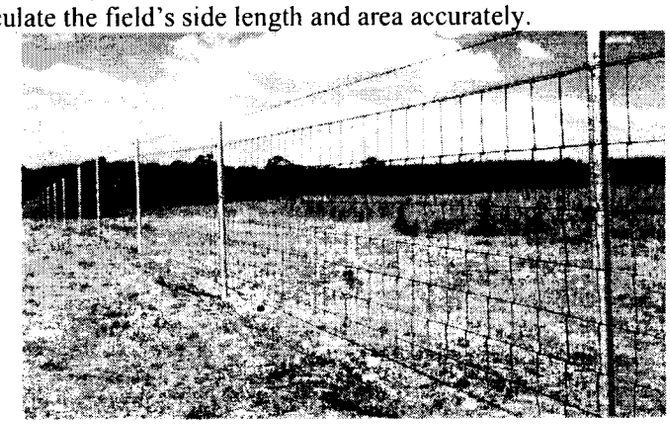
OR

A gardener has 1000 plants. He wants to plant these in such a way that the number of rows and the number of columns remain the same. Find the minimum number of plants he needs more for this. Also find the number of rows and the number of columns

SECTION – E (Case Study Based Question)

Question 19 to 20 carry 4 mark

19. A farmer owns a perfectly square field and plans to install a strong fence along its entire boundary to protect crops from animals. The total length of fencing available is 480 meters. In addition, he dreams of planting a large tree exactly at the center of the field to provide shade and beauty. To carry out his plan, he needs to calculate the field's side length and area accurately.



(a) Find the length of each side of the field. (1)

(b) What is the area of the field in square meters? (1)

(c) If the farmer decides to divide the field into 4 equal square parts by drawing two lines parallel to the sides, what will be the area of each part? (1)

(d) If the square field is divided into 4 equal square plots, each will be a smaller square.

20. During dance practice in school 6570 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 few children are left out.

(a) How many students were left out in arrangement? (1)

(b) What is the number of students forming a square? (1)

(c) Find the number of children in each row of the square. (2)

CHAPTER 01 RATIONAL NUMBERS

SUBJECT: MATHEMATICS **MAX. MARKS : 40**
CLASS : VIII **DURATION : 1½ hr**

SECTION – A

Questions 1 to 6 carry 1 mark each.

1. Which of the following is not true?
   (a) rational numbers are closed under addition.
   (b) rational numbers are closed under subtraction.
   (c) rational numbers are closed under multiplication.
   (d) rational numbers are closed under division.

2. (-3/8) + (1/7) = (1/7) + (-3/8) is an example to show that
   (a) addition of rational numbers is commutative.
   (b) rational numbers are closed under addition.
   (c) addition of rational number is associative.
   (d) rational numbers are distributive under addition.

3. In the below question, a statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice as
   Assertion (A): Rational numbers are commutative for division.
   Reason(R): Rational numbers are commutative under addition and multiplication.
   (a) Both A and R are true and R is the correct explanation of A
   (b) Both A and R are true but R is not the correct explanation of A
   (c) A is true but R is false
   (d) A is false but R is true

4. The reciprocal of -1 is
   (a) 1 (b) -1 (c) 0 (d) Not defined

5. The multiplicative inverse of $\left(-\frac{4}{7}\right)\times\left(\frac{-14}{24}\right)$ is
   (a) 1/2 (b) 1/3 (c) 3 (d) 2

6. The reciprocal of (-3/8) × (-7/13) is
   (a) 104/21 (b) -104/21 (c) 21/104 (d) -21/104

SECTION – B

Questions 7 to 9 carry 2 marks each.

7. Find using distributivity: $\left\{\frac{7}{5}\times\left(\frac{-3}{12}\right)\right\}+\left\{\frac{7}{5}\times\frac{5}{12}\right\}$

8. What number should be subtracted from $\frac{-7}{8}$ so as to get $\frac{5}{12}$?

9. Using suitable rearrangement and find the sum $\frac{4}{7}+\left(-\frac{4}{9}\right)+\frac{3}{7}+\left(-\frac{13}{9}\right)$:

SECTION – C

Questions 10 to 13 carry 3 marks each.

10. Simplify: $\frac{8}{-15}+\frac{7}{20}-\frac{-11}{35}+\frac{1}{5}$

11. Verify the property x + y = y + x of rational numbers by taking $x=\frac{-2}{5}, y=\frac{-9}{10}$.

12. Verify the property x × (y + z) = x × y + x × z of rational numbers by taking $x=\frac{-2}{3}, y=\frac{-4}{6}, z=\frac{-7}{9}$.

13. Find: (i) $\frac{6}{25}\div\frac{3}{10}$ (ii) $\frac{-9}{44}\div\frac{3}{11}$

SECTION – D

Questions 14 to 16 carry 4 marks each.

14. Simplify: $\left(\frac{-5}{9}\times\frac{72}{-125}\right)-\left(\frac{11}{17}\times\frac{34}{55}\right)+\left(\frac{28}{-13}\times\frac{-52}{21}\right)$

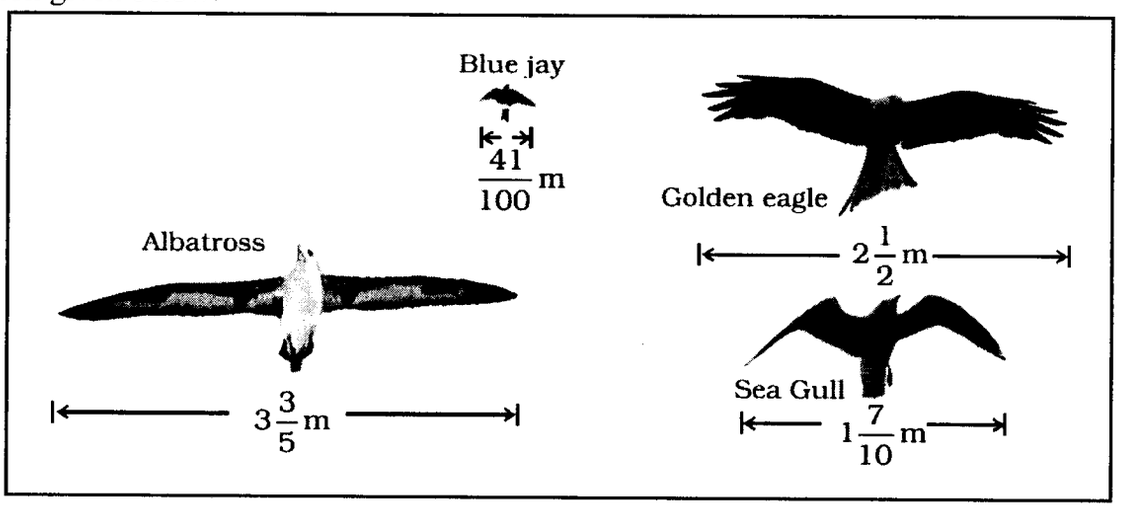
15. Arrange the rational numbers $\frac{-3}{7}, \frac{5}{-14}, -\frac{7}{12}$ in ascending order.

16. 5/8 of total number of teachers come by bus, while 1/8 of teachers come by two wheeler. All the other teachers walk to school of which 1/4 walk on their own. If 78 teachers come to school walking on their own, how many teachers taught in that school.

SECTION – E (Case Study Based Question)

Question 17 carry 4 mark

17. The diagram shows the wingspans of different species of birds. Use the diagram to answer the question given below:



(a) How much longer is the wingspan of an Albatross than the wingspan of a Sea gull?

(b) How much longer is the wingspan of a Golden eagle than the wingspan of a Blue jay?

SUBJECT: MATHEMATICS | MAX. MARKS : 40

CLASS : VIII | DURATION : 1½ hrs

General Instructions:

(i). **All** questions are compulsory.

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(iv). There is no overall choice.

(v). **Use of Calculators is not permitted**

SECTION – A

Questions 1 to 10 carry 1 mark each.

1. A quadrilateral has angles 80°, 100°, 70° and x°. What is the value of x?
   (a) 100° (b) 110° (c) 120° (d) 90°

2. The sum of interior angles of a polygon with 6 sides is:
   (a) 360° (b) 540° (c) 720° (d) 900°

3. Which of the following quadrilaterals has both pairs of opposite sides parallel and all angles equal?
   (a) Rhombus (b) Parallelogram (c) Square (d) Trapezium

4. If the three angles of a quadrilateral are 70°, 90° and 120°, then find the measure of the fourth angle.
   (a) 100° (b) 75° (c) 80° (d) 60°

5. Find the measure of each interior angle of a regular polygon with 12 sides.
   (a) 150° (b) 160° (c) 130° (d) 180°

6. The measure of two adjacent angles of a parallelogram are in the ratio 2:3. Find the measure of each of the angles of a parallelogram.
   (a) 72°, 108° (b) 54°, 112° (c) 68°, 99° (d) 86°, 114°

7. Identify the quadrilateral with the following properties:
   (i) One pair of opposite sides are parallel
   (ii) Diagonals are unequal
   (a) Parallelogram (b) Trapezium (c) Rectangle (d) Rhombus

8. In a parallelogram, which pair of angles is always supplementary?
   (a) Opposite angles (b) Adjacent angles (c) Alternate angles (d) Corresponding angles

In the following questions 9 and 10, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

9. **Assertion (A):** A kite has one pair of opposite angles equal.
   Reason (R): Adjacent sides of a kite are unequal.

10. **Assertion (A):** All the parallelograms are rectangles.
Reason(R): All the rhombuses are parallelograms.

SECTION – B

Questions 11 to 14 carry 2 marks each.

11. One angle of a quadrilateral is 120° and the remaining three angles are equal. Find the measure of each of the three equal angles.

12. How many sides does a regular polygon have, if each of its interior angles is 165°?

13. Ram was designing a rangoli using polygon shapes. He created a pattern using a regular polygon in which each interior angle measured 120°. Find the number of sides of the polygon and classify it.

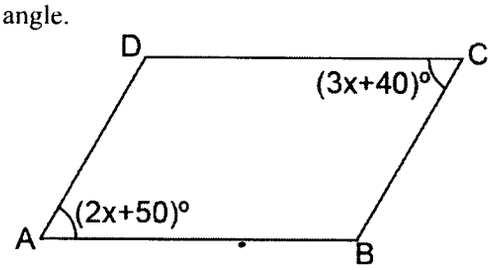
14. One angle of a parallelogram is of measure 70°. Find the measure of the remaining angles of the parallelogram.

SECTION – C

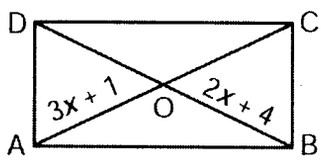
Questions 15 to 17 carry 3 marks each.

15. The sum of the exterior angles of a polygon is one-ninth of sum of the interior angles. Find the number of sides of the polygon.

16. ABCD is a parallelogram where m∠A = (2x + 50°) and m∠C = (3x + 40°). (i) Find the value of x (ii) Find the measure of each angle.

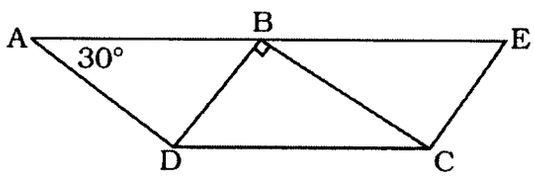


17. In the below figure, ABCD is a rectangle. Its diagonals meet at O. Find x, if OA = 3x + 1 and OB = 2x + 4.



OR

In the given figure, ABCD and BDCE are parallelograms with common base DC. If BC ⊥ BD, then find ∠BEC.

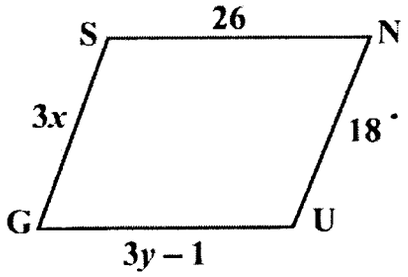


SECTION – D

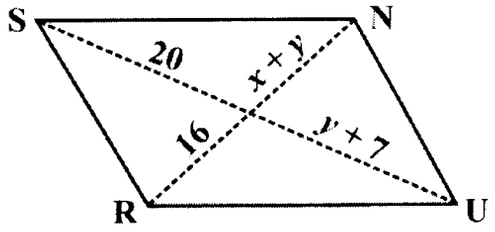
Questions 18 carry 5 marks.

18. The following figures GUNS and RUNS are parallelograms. Find x and y. (Lengths are in cm) [2 + 3 marks]

(i)



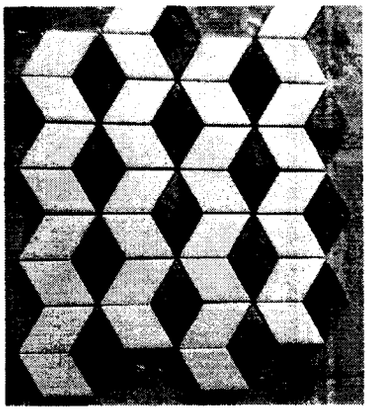
(ii)



SECTION – E (Case Study Based Questions)

Questions 19 to 20 carry 4 marks each.

19. A renowned flooring company is developing designer tiles shaped as special quadrilaterals. One new tile design has four equal-length sides, and when measured, its diagonals intersect at right angles but differ in length. The company's production engineer must classify this shape correctly for consistency in manufacturing and cataloging.



By using the above, give the answers of the following questions:

(a) What is the name of this quadrilateral?

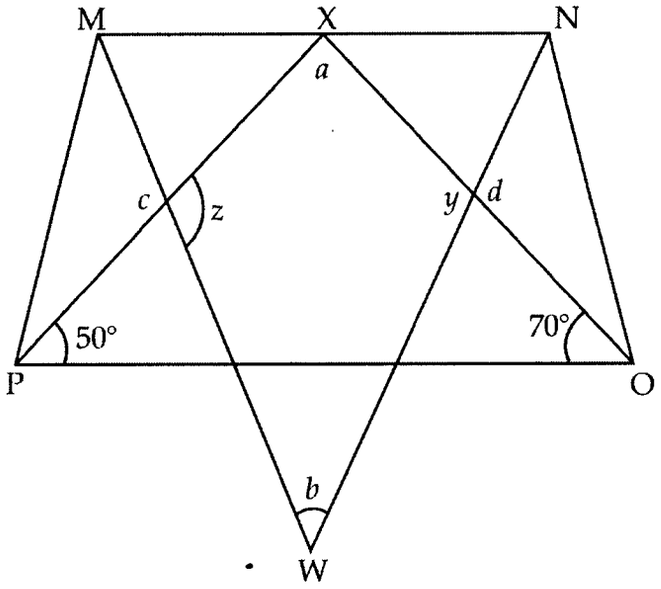
(b) Mention any two properties of this shape.

(c) Could this tile be a square? Why or why not?

(d) Name another quadrilateral with perpendicular diagonals and unequal side lengths.

20. There is a trapezium MNOP, angle bisector of ∠M and ∠N meet at point W, and angle bisector of ∠O and ∠P meet at point X on side MN of trapezium MNOP.

By using the figure give the answers of the following questions:



(i) What is the value of a? (1)

(ii) What is the value of d? (1½)

(iii) What is the value of c? (1½)

SUBJECT: MATHEMATICS | MAX. MARKS : 40

CLASS : VIII | DURATION : 1½ hr

SECTION – A

Questions 1 to 6 carry 1 mark each.

1. The compound interest on ₹ 50,000 at 4% per annum for 2 years compounded annually is
   (a) ₹ 4,000 (b) ₹ 4,080 (c) ₹ 4,280 (d) ₹ 4,050

2. The marked price of an article is ₹ 60 and it is sold at ₹ 45, then the discount rate will be.
   (a) 25% (b) 35% (c) 15% (d) none of these

3. The cost of a ticket for the show is ₹ 250. Ayush got a 20% discount on buying a ticket through online booking. How many rupees did Ayush pay for the ticket?
   (a) ₹ 25 (b) ₹ 50 (c) ₹ 200 (d) ₹ 300

4. Cost of TV is ₹ 3350 Sales tax of 10% is charged on it. Find the bill amount.
   (a) ₹ 3500 (b) ₹ 3725 (c) ₹ 3850 (d) ₹ 3685

5. In a certain exam of 300 marks, 150 is the qualifying marks. Rohit scored 120 out of 300. In order to qualify the exam how many percentage that of obtained marks he must need to secure more?
   (a) 10% (b) 25% (c) 30% (d) 50%

6. In the below question, a statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice as
   Assertion (A): The ratio of 5 cm to 1 m is 1 : 20.
   Reason(R): A ratio can be defined as the comparison between two numbers having same unit to find out how much bigger is first number with second number.
   (a) Both A and R are true and R is the correct explanation of A
   (b) Both A and R are true but R is not the correct explanation of A
   (c) A is true but R is false
   (d) A is false but R is true

SECTION – B

Questions 7 to 9 carry 2 marks each.

7. The list price of a music system is ₹ 16,925. If GST is charged at the rate of 12%, calculate the amount to be paid by the customer for purchasing it.

8. Anuj play 55 matches of badminton. Out of which he won 35 matches. Find the ratio of winning matches to lost matches?

9. Ayesha announced a festival discount of 25% on all the items in her mobile phone shop. Ramandeep bought a mobile phone for himself. He got a discount of ₹ 1,960. What was the marked price of the mobile phone ?

SECTION – C

Questions 10 to 13 carry 3 marks each.

10. A shirt was sold for ₹ 598.40 after allowing a discount of 12% on its marked price. Determine the marked price of the shirt.

11. A shopkeeper was selling all his items at 25% discount. During the off season, he offered 30% discount over and above the existing discount. If Pragya bought a skirt which was marked for ₹ 1,200, how much did she pay for it?

12. A car costing ₹ 3,00,000 depreciates each year by 10% of its value at the beginning of the year. Find its value at the end of 3 years.

13. The population of a village is 25,000. It increases at the rate of 2% every year. Then, find the population at the end of two years

SECTION – D

Questions 14 to 16 carry 4 marks each.

14. Hamid goes to a shop to buy a grinder costing ₹ 2700. The rate of the VAT is 8%. He tells the shopkeeper to allow a discount on the price of the grinder to such an extent that he pays ₹ 2700 inclusive of VAT. Find the discount on the price of the grinder.

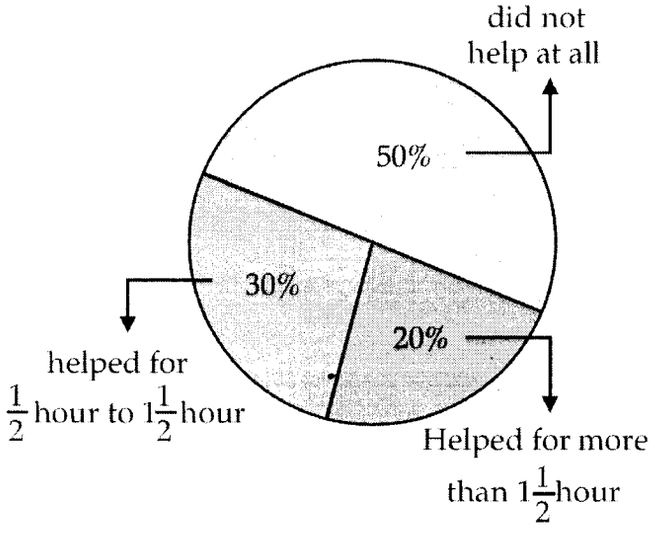
15. The population of a village increased to 44100 in 2003 at a rate of 5 % per annum. What was the population in 2001?

16. Given the principal = Rs 40,000, rate of interest = 8% p.a. compounded annually. Find
(a) Interest if period is one year. (b) Principal for 2nd year.
(c) Interest for 2nd year. (d) Amount if period is 2 years.

SECTION – E (Case Study Based Question)

Question 17 carry 4 mark

17. In a primary school, the parents were asked about the number of hours they spend per day in helping their children to do homework. There were 90 parents who help for 1/2 hr to 3/2 hr . The distribution of parents according to the time for which, they said they helped is given in the adjoining figure, 20% helped for more than 3/2 hr per day. 30% helped for 1 hr to 1 1/2 hr ; 50% did not help at all.



Using this, answer the following:
(a) How many parents were surveyed? (2)
(b) How many said that did not help? (1)
(c) How many said that they helped for more than 3/2 hours? (1)

CHAPTER 02 LINEAR EQUATION IN ONE VARIABLE

SUBJECT: MATHEMATICS **MAX. MARKS : 40**

CLASS : VIII **DURATION : 1½ hrs**

General Instructions:

(i). **All** questions are compulsory.

(ii). This question paper contains **20** questions divided into five Sections A, B, C, D and E.

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(iv). There is no overall choice.

(v). **Use of Calculators is not permitted**

SECTION – A

Questions 1 to 10 carry 1 mark each.

1. In a linear equation, if we multiply both sides by the same non-zero number, then the solution:
(a) remains unchanged (b) becomes double (c) becomes zero (d) becomes undefined

2. The solution of which of the following equations is neither a fraction nor an integer.
(a) $3x + 2 = 5x + 2$ (b) $4x - 18 = 2$ (c) $4x + 7 = x + 2$ (d) $5x - 8 = x + 4$

3. If $3(t - 3) = 5(2t + 1)$, then $t = ?$
(a) –2 (b) 2 (c) –3 (d) 3

4. If $2y + \frac{5}{3} = \frac{26}{3} - y$, then $y = ?$
(a) 1 (b) 2/3 (c) 6/5 (d) 7/3

5. If $10x - 5 - 7x = 5x + 15 - 8$, then the value of x is
(a) 6 (b) –6 (c) 5 (d) –5

6. Find the solution of $\frac{3x+5}{2x+1} = \frac{1}{3}$
(a) 2 (b) –2 (c) 3 (d) none of these

7. Solve: $\frac{15}{4} - 7x = 9$
(a) $\frac{3}{4}$ (b) $-\frac{3}{4}$ (c) 1 (d) none of these

8. A number is such that when it is decreased by 7, the result is equal to one-third of the original number. Find the number.
(a) 10.5 (b) 10.2 (c) 21 (d) 9

In the following questions 9 and 10, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

9. **Assertion (A):** The equation $2x + 3 = 2x + 5$ has no solution.
Reason (R): If both sides of an equation are exactly equal, then the equation has infinite solutions.

10. **Assertion (A):** The equation $x^2 - 2x + 1$ is a linear equation in one variable.
Reason(R): Standard form for linear equation in one variable is $ax + b = 0$, where x is variable and a, b are arbitrary constants.

SECTION – B

Questions 11 to 14 carry 2 marks each.

11. Solve: $8x + 4 = 3(x - 1) + 7$

12. Solve: $2y + \frac{5}{3} = \frac{26}{3} - y$

13. Solve: $\frac{n}{2} - \frac{3n}{4} + \frac{5n}{6} = 21$

14. Solve: $x = \frac{4}{5}(x + 10)$

SECTION – C

Questions 15 to 17 carry 3 marks each.

15. Simplify and solve the linear equations: $4(3p + 2) - 5(6p - 1) = 2(p - 8) - 6(7p - 4)$

16. Solve: $\frac{1}{4}x + \frac{1}{6}x = x - 7$

OR

Simplify and solve the linear equations: $15(y - 4) - 2(y - 9) + 5(y + 6) = 0$

17. Simplify and solve the linear equations: $3(5z - 7) - 2(9z - 11) = 4(8z - 13) - 17$

SECTION – D

Questions 18 carry 5 marks each.

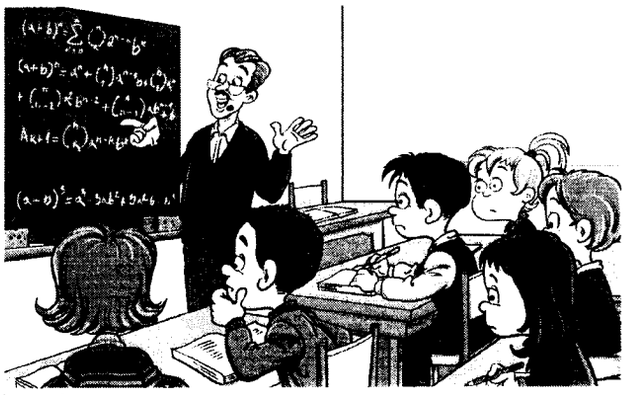
18. Solve: (a) $\frac{6x + 7}{3x + 2} = \frac{4x + 5}{2x + 3}$

(b) $\frac{x}{2} - \frac{1}{4}\left(x - \frac{1}{3}\right) = \frac{1}{6}(x + 1) + \frac{1}{12}$

SECTION – E (Case Study Based Question)

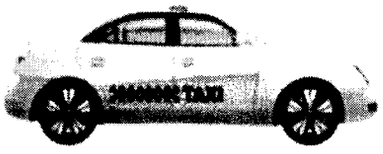
Question 17 carry 4 mark

19. The teacher tells the class that the lowest marks obtained by a student in his class is half the highest marks plus 5. The lowest score is 45. Just to pass in the examination border line marks is just 12 less than the lowest marks obtained by the student in the class.



(a) Find the highest marks. (2)
(b) Find the required passing marks. (1)
(c) If one student Aditya of another class who scored 9 marks more than the doubled of lowest marks of this class, find the aditya's marks. (1)

20. It is common that government revises fares from time to time based on various factors such as taxes, economy and inflation, for various vehicles like auto-rickshaw, taxis and radio cab etc. The auto and Taxi charge in a city comprise of fixed charge and the charge for the distance covered. Few situations are given below in the form questions.



(a) If the fixed charge in a city is ₹ x and charge per km is ₹ 5 and total fare is ₹ 60 then find the linear equation for the journey of 10 km. **(1)**
(b) In the above question, what is the value of fixed charge? **(1)**
(c) If in a city a person has to pay ₹ 110 for a journey of 15 km and fixed charge is ₹ 20 then what is the charge per km is? **(1)**
(d) If in a city fixed charge is double of the charge per km and a person paid ₹ 75 for a journey of 1 km, then the linear equation for the following situation is? **(1)**