MATHEMATICS

QUESTION BANK

for

Summative Assessment - I

CLASS – VIII

2014 – 15

CHAPTER WISE COVERAGE IN THE FORM
MCQ WORKSHEETS AND PRACTICE QUESTIONSS

Prepared by

M. S. KUMARSWAMY, TGT(MATHS)
M. Sc. Gold Medallist (Elect.), B. Ed.

Kendriya Vidyalaya donimalai

PREFACE

It gives me great pleasure in presenting the Question Bank for Summative Assessment (SA) - I. It is in accordance with the syllabus of the session 2014–15 for first term (CCE pattern).

Each chapter has a large number of multiple-choice questions in the form of Worksheets, which will help students quickly test their knowledge and skill.

A sufficient number of short answer type and long answer type questions are included in the form of PRACTICE QUESTIONS. This Question Bank is also helpful to all the teachers for internal assessment of the students.

Keeping the mind the mental level of a child, every effort has been made to introduce simple multiple choice questions so that the child solve them easily and gets confidence.

I avail this opportunity to convey my sincere thanks to respected sir Shri Isampal, Deputy Commissioner, KVS RO Bangalore, respected sir Shri P. V. Sairanga Rao, Deputy Commissioner, KVS RO Varanasi, respected sir Shri P. Deva Kumar, Deputy Commissioner, KVS RO Ahmedabad, respected sir Shri. K. L. Nagaraju, Assistant Commissioner, KVS RO Bangalore and respected sir Shri.Gangadharaiah, Assistant Commissioner, KVS RO Bangalore for their blessings, motivation and encouragement in bringing out this notes in such an excellent form.

I also extend my special thanks to respected madam Smt. Nirmala Kumari M., Principal, KV Donimalai and respected Shri. M. Vishwanatham, Principal, KV Raichur for their kind suggestions and motivation while preparing this Question Bank.

I would like to place on record my thanks to respected sir Shri. P. K. Chandran, Principal, presently working in KV Bambolim. I have started my career in KVS under his guidance, suggestions and motivation.

Inspite of my best efforts to make this Question Bank error free, some errors might have gone unnoticed. I shall be grateful to the students and teacher if the same are brought to my notice. You may send your valuable suggestions, feedback or queries through email to kumarsir34@gmail.com that would be verified by me and the corrections would be incorporated in the next year Question Bank.

M. S. KUMARSWAMY

DEDICATED

TO

MY FATHER

LATE SHRI. M. S. MALLAYYA

MCQ WORKSHEET-I
CLASS VIII: CHAPTER - 1
RATIONAL NUMBERS

1. Associative property is not followed in _____
(a) whole numbers (b) integers (c) natural numbers (d) rational numbers

2. ____ is the identity for the addition of rational numbers.
(a) 1 (b) 0 (c) – 1 (d) $\frac{1}{2}$

3. ____ is the multiplicative identity for rational numbers.
(a) 1 (b) 0 (c) – 1 (d) $\frac{1}{2}$

4. The additive inverse of $\frac{7}{5}$ is
(a) 1 (b) 0 (c) $-\frac{7}{5}$ (d) $\frac{7}{5}$

5. Zero has _____ reciprocal.
(a) 1 (b) 2 (c) 3 (d) no

6. The numbers _____ and _____ are their own reciprocals
(a) 1 and 0 (b) 1 and –1 (c) –1 and 0 (d) none of these.

7. The reciprocal of – 5 is _____.
(a) 5 (b) 1 (c) $-\frac{1}{5}$ (d) $\frac{1}{5}$

8. Reciprocal of $\frac{1}{x}$, where $x \neq 0$ is _____.
(a) 1 (b) x (c) 0 (d) none of these

9. The product of two rational numbers is always a _____.
(a) whole numbers (b) integers (c) natural numbers (d) rational numbers

10. Simplify: $\frac{-4}{5} \times \frac{3}{7} \times \frac{15}{16} \times \left(\frac{-14}{9}\right)$
(a) 1 (b) 0 (c) 2 (d) $\frac{1}{2}$

11. The sum of the rational numbers $\frac{-5}{16}$ and $\frac{7}{12}$ is
(a) $\frac{-7}{48}$ (b) $\frac{-11}{30}$ (c) $\frac{13}{48}$ (d) $\frac{1}{3}$

12. What number should be added to $\frac{7}{12}$ to get $\frac{4}{15}$?
(a) $-\frac{19}{60}$ (b) $-\frac{11}{30}$ (c) $\frac{51}{60}$ (d) $\frac{1}{20}$

MCQ WORKSHEET-II
CLASS VIII: CHAPTER - 1
RATIONAL NUMBERS

1. The reciprocal of a positive rational number is _____.
(a) negative (b) positive (c) zero (d) none of these

2. What number should be subtracted from $-\frac{3}{5}$ to get –2?
(a) $-\frac{7}{5}$ (b) $-\frac{13}{5}$ (c) $\frac{13}{5}$ (d) $\frac{7}{5}$

3. Which of the rational numbers $\frac{-11}{28}, \frac{-5}{7}, \frac{9}{-14}, \frac{29}{-42}$ is the greatest?
(a) $\frac{-11}{28}$ (b) $\frac{-5}{7}$ (c) $\frac{9}{-14}$ (d) $\frac{29}{-42}$

4. Which of the rational numbers $\frac{-5}{16}, \frac{-13}{24}, \frac{3}{-4}, \frac{7}{-12}$ is the smallest?
(a) $\frac{-5}{16}$ (b) $\frac{-13}{24}$ (c) $\frac{3}{-4}$ (d) $\frac{7}{-12}$

5. Simplify: $\frac{2}{3}+\frac{-4}{5}+\frac{7}{15}+\frac{-11}{20}$
(a) $\frac{-1}{5}$ (b) $\frac{-13}{60}$ (c) $\frac{-4}{15}$ (d) $\frac{-7}{30}$

6. Rational number $\frac{3}{40}$ is equal to:
(a) 0.75 (b) 0.12 (c) 0.012 (d) 0.075

7. A rational number between 3 and 4 is:
(a) $\frac{3}{2}$ (b) $\frac{4}{3}$ (c) $\frac{7}{2}$ (d) $\frac{7}{4}$

8. A rational number between $\frac{3}{5}$ and $\frac{4}{5}$ is:
(a) $\frac{7}{5}$ (b) $\frac{7}{10}$ (c) $\frac{3}{10}$ (d) $\frac{4}{10}$

9. A rational number between $\frac{1}{2}$ and $\frac{3}{4}$ is:
(a) $\frac{2}{5}$ (b) $\frac{5}{8}$ (c) $\frac{4}{3}$ (d) $\frac{1}{4}$

10. The multiplicative inverse of $\frac{3}{40}$ is:
(a) 1 (b) 0 (c) any number (d) none of these

PRACTICE QUESTIONS
CLASS VIII: CHAPTER - 1
RATIONAL NUMBERS

1. Find $\frac{3}{7}+\left(\frac{-6}{11}\right)+\left(\frac{-8}{21}\right)+\frac{5}{22}$

2. Find $\frac{-4}{5}\times\frac{3}{7}\times\frac{15}{16}\times\left(\frac{-14}{9}\right)$

3. Find using distributive property: $(i)\left\{\frac{7}{5}\times\left(\frac{-3}{12}\right)\right\}+\left\{\frac{7}{5}\times\frac{5}{12}\right\}$ $(ii)\left\{\frac{9}{16}\times\frac{4}{12}\right\}+\left\{\frac{9}{16}\times\frac{-3}{9}\right\}$

4. Find $\frac{2}{5}\times\frac{-3}{7}-\frac{1}{14}-\frac{3}{7}\times\frac{3}{5}$

5. Simplify: $\frac{-4}{5}\times\frac{3}{7}\times\frac{15}{16}\times\left(\frac{-14}{9}\right)$

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

7. What number should be added to $\frac{7}{12}$ to get $\frac{4}{15}$?

8. What number should be subtracted from $-\frac{3}{5}$ to get –2?

9. Is $\frac{8}{9}$ the multiplicative reciprocal of $-1\frac{1}{8}$? Why or why not?

10. Is 0.3 the multiplicative reciprocal of $3\frac{1}{3}$? Why or why not?

11. Write any 3 rational numbers between –2 and 0.

12. Find any ten rational numbers between $\frac{-5}{6} and \frac{5}{8}$

13. Find three rational numbers between $\frac{1}{4} and \frac{1}{2}$

14. Find ten rational numbers between $\frac{1}{4} and \frac{1}{2}$

15. Represent these numbers on the number line. $(i)\frac{7}{4}(ii)\frac{-5}{6}(iii)\frac{4}{7}(iv)\frac{9}{4}$

16. Represent $\frac{-2}{11},\frac{-5}{11},\frac{-9}{11}$ on the number line

17. Find five rational numbers between. $(i)\frac{2}{3} and \frac{4}{5}(ii)\frac{-3}{2} and \frac{5}{3}(iii)\frac{1}{4} and \frac{1}{2}$

18. Write five rational numbers greater than –2

19. Find ten rational numbers between $\frac{3}{5} and \frac{3}{4}$.

20. Write.

(i) The rational number that does not have a reciprocal.

(ii) The rational numbers that are equal to their reciprocals.

(iii) The rational number that is equal to its negative.

ASSIGNMENT QUESTIONS

CLASS VIII: CHAPTER - 1

RATIONAL NUMBERS

1. Simplify: (i) $\frac{-2}{5}-\left(\frac{-3}{10}\right)-\left(\frac{-4}{15}\right)$ (ii) $\frac{5}{3}-\frac{7}{6}+\left(\frac{-2}{3}\right)$ (iii) $\frac{-3}{2}+\left(\frac{5}{4}-\frac{7}{4}\right)$

2. Verify that $\left(x\times y\right)^{-1}=x^{-1}\times y^{-1}$ when $x=\frac{-2}{3}$ and $y=\frac{-3}{5}$

3. If you subtract $\frac{1}{2}$ from a number and multiply the result by $\frac{1}{2}$, you get $\frac{1}{8}$. What is the number?

4. Three consecutive integers are such that when they are taken in increasing order and multiplied by 2, 3, and 4 respectively, they add up to 74. Find these numbers.

5. Represent the following rational numbers on the number line

(a) $-\frac{1}{4}$ (b) $-1\frac{1}{5}$ (c) $-3\frac{8}{5}$

6. Represent the following rational numbers on the number line

(a) $-\frac{7}{10}$ (b) $-5\frac{3}{5}$.

7. Find two rational numbers between (i) –2 and 2. (ii) –1 and 0.

8. Insert six rational numbers between (i) $-\frac{1}{3}$ and $-\frac{2}{3}$ (ii) $\frac{1}{4}$ and $\frac{1}{2}$.

9. Arrange the following numbers in ascending order: $\frac{4}{-9}, \frac{-5}{12}, \frac{7}{-18}, \frac{-2}{3}$

10. Arrange the following numbers in descending order: $-\frac{5}{6}, -\frac{7}{12}, \frac{-13}{28}, \frac{23}{-24}$

11. Represent $4\frac{2}{3}$ on the number line.

12. What number should be added to $\frac{-7}{8}$ to get $\frac{4}{9}$?

13. The sum of two rational numbers is $\frac{-1}{2}$. If one of the numbers is $\frac{5}{6}$, find the other.

14. What number should be subtracted from $\frac{-2}{3}$ to get $\frac{-1}{2}$?

15. Divide the sum of $\frac{13}{5}$ and $\frac{-12}{7}$ by the product of $\frac{-31}{7}$ and $\frac{-1}{2}$.

16. The product of two rational numbers is $\frac{-16}{9}$. If one of the numbers is $\frac{-4}{3}$, find the other.

17. Find three rational numbers between 4 and 5.

18. Find three rational numbers between $\frac{2}{3}$ and $\frac{3}{4}$.

19. Find the HCF of $\frac{9}{10}, \frac{12}{25}, \frac{18}{35}, \frac{21}{40}$.

20. After reading $\frac{7}{9}$ of a book, 40 pages are left. How many pages are there in the book?

21. A drum full of rice weights 4016 kg. If the empty drum weights 1334 kg, find the weight of rice in the drum.

22. Raju earns Rs16000/month. He spends $\frac{1}{4}$ of his income on food; $\frac{3}{10}$ of the remainder on house rent and $\frac{5}{21}$ of the remainder on education of children. How much money is still left with him?

23. Divide the sum of $2\frac{1}{4}$ *and* $5\frac{1}{5}$ by the product of $2\frac{1}{4}$ *and* $\frac{2}{3}$

24. Divide the difference of $\frac{12}{7}$ *and* $\frac{13}{4}$ by the product of $\frac{4}{5}$ *and* $\frac{25}{2}$.

25. A tin holds $16\frac{1}{2}$ litres of oil. How many such tins will be required to hold $313\frac{1}{2}$ litres of oil?

26. Salma bought $2\frac{1}{2}$ kg onions at Rs. 12 per Kg. and $1\frac{3}{8}$ Kg. tomatoes at Rs. $16\frac{8}{11}$ per Kg. How much money did she give to the shopkeeper?

27. A designer needs $\frac{3}{5}$ th of a metre of cloth to make a fancy dress for children taking part in a dance performance. If 200 children are taking part, how much cloth will the designer need?

28. Find a rational number between $\frac{1}{2}$ *and* $\frac{1}{4}$ such that its denominator is 8.

29. Which number should be subtracted from $\frac{11}{12}$ so that we obtain $\frac{-3}{4}$?

30. What number should be added to $\frac{15}{16}$ so that we get the rational number $\frac{77}{48}$.

MCQ WORKSHEET-I
CLASS VIII: CHAPTER - 2
LINEAR EQUATION IN ONE VARIABLE

1. The solution of $2x - 3 = 7$ is
(a) 2 (b) –2 (c) 5 (d) –5

2. Which of the following is not a linear equation
(a) $2x + 5 = 1$ (b) $x - 1 = 0$ (c) $y + 1 = 0$ (d) $5x + 3$

3. Solve $2y + 9 = 4$
(a) 2 (b) –2 (c) 5 (d) none of these

4. Solve : $\frac{x}{3}+\frac{5}{2}=\frac{-3}{2}$
(a) 12 (b) –12 (c) 15 (d) none of these

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

6. Solve: $x - 2 = 7$
(a) 5 (b) –9 (c) 5 (d) 9

7. Solve: $y + 3 = 10$
(a) 7 (b) –7 (c) 13 (d) –13

8. Solve: $6 = z + 2$
(a) 4 (b) –4 (c) 8 (d) –8

9. Solve: $6x = 12$
(a) 2 (b) –2 (c) 3 (d) none of these

10. Solve: $\frac{x}{5}=10$
(a) 15 (b) 50 (c) –50 (d) none of these

11. Solve: $\frac{2x}{3}=18$
(a) 9 (b) 27 (c) –9 (d) none of these

12. The present age of Sahil's mother is three times the present age of Sahil. After 5 years their ages will add to 66 years. Find the present ages of Sahil.
(a) 12 (b) 14 (c) 16 (d) 20

MCQ WORKSHEET-II
CLASS VIII: CHAPTER - 2
LINEAR EQUATION IN ONE VARIABLE

1. Solve: $7x - 9 = 12$
(a) 2 (b) –2 (c) 3 (d) none of these

2. Find the solution of $2x + 3 = 7$
(a) 2 (b) –2 (c) 3 (d) none of these

3. Solve: $8x = 20 + 3x$
(a) 4 (b) –4 (c) 2 (d) none of these

4. Solve: $\frac{2}{3}x + 1 = \frac{7}{3}$
(a) 2 (b) –2 (c) 3 (d) none of these

5. Solve: $\frac{x}{4} + \frac{x}{6} = x - 7$
(a) 12 (b) –12 (c) 3 (d) none of these

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

7. Find the solution of $\frac{x+6}{4} + \frac{x-3}{5} = \frac{5x-4}{8}$
(a) 8 (b) –8 (c) 4 (d) none of these

8. Solve: $8x + 3 = 27$
(a) 3 (b) –3 (c) 2 (d) none of these

9. Solve: $5x - 7 = 2x + 8$
(a) 5 (b) –9 (c) 5 (d) 9

10. The perimeter of a rectangle is 13 cm and its width is $2\frac{3}{4}$ cm. Find its length in cm.
(a) $3\frac{3}{4}$ (b) $-3\frac{3}{4}$ (c) $2\frac{3}{4}$ (d) none of these

11. Bansi has 3 times as many two-rupee coins as he has five-rupee coins. If he has in all a sum of Rs 77, how many coins of each denomination does he have?
(a) 7, 21 (b) 3, 9 (c) 6, 18 (d) 5, 15

12. The sum of three consecutive multiples of 11 is 363. Find these multiples.
(a) 117, 121, 125 (b) 110, 121, 132 (c) 110, 99, 154 (d) 154, 88, 121

MCQ WORKSHEET-III
CLASS VIII: CHAPTER - 2
LINEAR EQUATION IN ONE VARIABLE

1. The difference between two whole numbers is 66. The ratio of the two numbers is 2 : 5. What are the two numbers?
(a) 110, 44 (b) 120, 54 (c) 140, 74 (d) none of these

2. Sum of two numbers is 95. If one exceeds the other by 15, find the numbers.
(a) 55, 35 (b) 50, 45 (c) 40, 25 (d) none of these

3. Two numbers are in the ratio 5:3. If they differ by 18, what are the numbers?
(a) 45, 27 (b) 50, 32 (c) 40, 22 (d) none of these

4. Three consecutive integers add up to 51. What are these integers?
(a) 117, 121, 125 (b) 110, 121, 132 (c) 110, 99, 154 (d) none of these

5. The sum of three consecutive multiples of 8 is 888. Find the multiples.
(a) 120, 136, 400 (b) 110, 121, 132 (c) 110, 99, 154 (d) none of these

6. Solve: $2x - 3 = x + 2$
(a) 5 (b) –9 (c) 5 (d) 9

7. Solve: $3x = 2x + 18$
(a) 18 (b) –18 (c) 14 (d) none of these

8. Solve: $5t - 3 = 3t - 5$
(a) 1 (b) –1 (c) 2 (d) none of these

9. Solve: $5x + 9 = 5 + 3x$
(a) 2 (b) –2 (c) 3 (d) none of these

10. Solve: $4z + 3 = 6 + 2z$
(a) $\frac{3}{2}$ (b) $-\frac{3}{2}$ (c) 2 (d) none of these

11. Solve: $2x - 1 = 14 - x$
(a) 5 (b) –9 (c) 5 (d) 9

12. Solve: $8x + 4 = 3(x - 1) + 7$
(a) 1 (b) –1 (c) 0 (d) none of these

PRACTICE QUESTIONS
CLASS VIII: CHAPTER - 2
LINEAR EQUATION IN ONE VARIABLE

1. Find the solution of $\frac{3x+5}{2x+1}=\frac{1}{3}$

2. Find the solution of $\frac{x+6}{4}+\frac{x-3}{5}=\frac{5x-4}{8}$

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

4. Solve: $\frac{2}{3}x+1=\frac{7}{3}$

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

6. Solve: $\frac{15}{4}-7x=9$

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

8. Solve: $\frac{2x}{3}+1=\frac{7x}{15}+3$

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

10. Solve: $3m-5m-\frac{8}{5}$

11. Solve: $5x+\frac{7}{2}=\frac{3}{2}x-14$

12. The perimeter of a rectangular swimming pool is 154 m. Its length is 2 m more than twice its breadth. What are the length and the breadth of the pool?

13. The base of an isosceles triangle is $\frac{4}{3}$ cm. The perimeter of the triangle is $4\frac{2}{15}$ cm. What is the length of either of the remaining equal sides?

14. Sum of two numbers is 95. If one exceeds the other by 15, find the numbers.

15. Two numbers are in the ratio 5:3. If they differ by 18, what are the numbers?

16. Three consecutive integers add up to 51. What are these integers?

17. The sum of three consecutive multiples of 8 is 888. Find the multiples.

18. Three consecutive integers are such that when they are taken in increasing order and multiplied by 2, 3 and 4 respectively, they add up to 74. Find these numbers.

19. The ages of Rahul and Haroon are in the ratio 5:7. Four years later the sum of their ages will be 56 years. What are their present ages?

20. The number of boys and girls in a class are in the ratio 7:5. The number of boys is 8 more than the number of girls. What is the total class strength?

21. Fifteen years from now Ravi's age will be four times his present age. What is Ravi's present age?

22. A rational number is such that when you multiply it by $\frac{5}{2}$ and add $\frac{2}{3}$ to the product, you get $-\frac{7}{12}$. What is the number?

23. Lakshmi is a cashier in a bank. She has currency notes of denominations Rs 100, Rs 50 and Rs 10, respectively. The ratio of the number of these notes is 2:3:5. The total cash with Lakshmi is Rs 4,00,000. How many notes of each denomination does she have?

24. I have a total of Rs 300 in coins of denomination Re 1, Rs 2 and Rs 5. The number of Rs 2 coins is 3 times the number of Rs 5 coins. The total number of coins is 160. How many coins of each denomination are with me?

25. The organisers of an essay competition decide that a winner in the competition gets a prize of Rs 100 and a participant who does not win gets a prize of Rs 25. The total prize money distributed is Rs 3,000. Find the number of winners, if the total number of participants is 63.

26. Deveshi has a total of Rs 590 as currency notes in the denominations of Rs 50, Rs 20 and Rs 10. The ratio of the number of Rs 50 notes and Rs 20 notes is 3:5. If she has a total of 25 notes, how many notes of each denomination she has?

27. Solve: $\frac{6x+1}{3}+1=\frac{x-3}{6}$

28. Solve: $5x-2(2x-7)=2(3x-1)+\frac{7}{2}$

29. Solve: $\frac{3x-2}{4}-\frac{2x+3}{3}=\frac{2}{3}-x$

30. Solve: $\frac{3x+2}{7}+\frac{4(x+1)}{5}=\frac{2}{3}(2x+1)$

31. Solve: $x-\frac{x-1}{2}=1-\frac{x-2}{3}$

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

33. Solve: $x+7-\frac{8x}{3}=\frac{17}{6}-\frac{5x}{2}$

34. Solve: $\frac{3x+4}{2-6x}=\frac{-2}{5}$

35. Solve: $\frac{7x+4}{x+2}=\frac{-4}{3}$

Assignment QUestiOns

CLASS VIII: CHAPTER - 2

LINEAR EQUATION IN ONE VARIABLE

1. A train is moving at the speed of x km/hour. What distance will it cover in 15 hours if it stops for 1 hour at two stations.

2. 48 sweets are to be distributed among three friends *A, B* and *C* in such a way that *B* gets 5 sweets more than *A* and *C* gets 7 sweets more than *A*. Form an equation.

3. I guessed a number (x) then added 10 to it. Give the expression for double of it.

4. Find x if $2x + 5 = x + 25$.

5. Ratio of three angles of a triangle is 1 : 2 : 3. Find the angles.

6. Perimeter of the top of a table in the conference hall is 32cm. If the length of the table is 3 times its breadth, how long is the table?

7. Preeti has three more dolls than Renu. If there are 11 dolls in all, how many dolls does each have.

8. Ankit covered $\frac{1}{2}$ of the distance by metro train, $\frac{1}{3}$ of the distance by bus and rest of 6 km by car for moving from Dwarka to South Extension. Find the total distance covered?

9. Sum of two numbers is 30. If one number is twice the other, form an equation for finding the numbers.

10. If $3(x + 4) = x + 38$ find x.

11. Ratio of three sides of a triangle are 1 : 3 : 5 and perimeter of the triangle is 270m. Find the sides.

12. Two numbers are in the ratio 4:7. If the sum of numbers is 143, find the numbers.

13. Sides of a rectangle are in the ratio 14:3. If the perimeter of the rectangle is 170 cms, find the length and breadth.

14. Find three consecutive odd numbers whose sum is 147.

15. If father is twice as old as his son and also 29 years older than his son. What is the age of father?

16. If you subtract $\frac{1}{2}$ from a number and multiply the result by $\frac{1}{2}$, you get $\frac{1}{8}$.What is the number?

17. The perimeter of a rectangular swimming pool is 154 metres. Its length is 2 m more than twice its breadth. What are the length and breadth of the pool

18. The base of an isosceles triangle is $\frac{4}{3}$ cms. The Perimeter of the triangle is $4\frac{2}{15}$ cm. Find the length of other two sides of the triangle

19. Sum of two numbers is 95. If one exceeds the other by 15 find the numbers

20. Two numbers are in the ration 5:3. If they differ by 18, find these numbers

21. Three consecutive integers add up to 51. What are these integers?

22. The sum of three consecutive multiples of 8 is 888. Find the multiple

23. Three consecutive integers are as such when they are taken in increasing order and multiplied by 2, 3, and 4 respectively, they add up to 74. Find these numbers

24. The ages of Rahul and Haroon are in the ratio of 5:7. Four years from now sum of their ages will be 56 years. Find their present age.

25. Baichung's father is 26 years younger than Baichung's grandfather and 29 years older than Baichung. The sum of their ages is 135. Find their ages

26. Lakshmi is a cashier in a bank. She has notes of denominations of Rs.100, 50 and 10 respectively. The ratio of number of these notes is 2:3:5 respectively. The total cash with Lakshmi is 4,00,000. How many notes of each denomination does she have?

27. Lakshmi is a cashier in a bank. She has notes of denominations of Rs.100, 50 and 10 respectively. The ratio of number of these notes is 2:3:5 respectively. The total cash with Lakshmi is 4,00,000. How many notes of each denomination does she have?

28. The organizers in an essay competition decide that winner will get a prize of Rs. 100 and a participation who doesn't win gets a prize of Rs. 25.The total prize money distributed is Rs. 3,000. Find the number of winners if the total number of participants is 63.

29. Sum of the digits of a two digit number is 9. When we interchange the digits the new number is 27 greater than the earlier number. Find the number

30. One of the digits of a two digit number is three times the other digit. If you interchange the digits and add the resulting number to original number you get 88 as final result. Find the numbers.

31. Sahoo's mother's present age is six times Sahoo's present age. Five year from now Sahoo's age will be one-third of his mother's age. Find their cur-rent age

32. Half of a herd of deer are grazing in the field and three fourths of the remaining are playing nearby. The rest 9 are drinking water from the pond. Find the total number of deer in the herd

33. A man's age is three times his son's age. Ten years ago his age was five times his son's age. Find their current age

34. If in a rational number denominator is greater than numerator by 8. If you increase the numerator by 17 and decrease the denominator by 1, you get 3/2 as result. Find the number

35. The perimeter of a rectangular swimming pool is 154 m. Its length is 2m more than twice its breadth. What are the length and breadth of the pool?

36. Two numbers are in the ratio 8:3. If sum of the numbers is 143, find the numbers

37. Four-fifths of a number is 10more than two-thirds of the number. Find the number

38. If 10 be added to four times a certain number, the result is 5less than five times the number. Find the number

39. The width of a rectangle is two-thirds its length. If the perimeter is 180m, find the dimensions of the rectangle

40. Rakhi's mother is four times as old as Rakhi. After 5years, her mother will be three times as she will be then. Find their present ages

41. The length of a rectangle exceeds its breadth by 7cm. If the length is deceased by 4cm and the breadth is increased by 3cm, the area of the new rectangle is the same as the area of original rectangle. Find the length and breadth of the original rectangle

42. The difference between ages of two cousins is 10years. 15yearsago, if the elder one was twice as old as the younger one, find their present ages.

43. Find three consecutive even numbers whose sum is 234

44. Twenty four is divided into two parts such that 7times the first part added to 5times the second part makes 146. Find each part

45. Three numbers are in ratio 4:5:6. If the sum of the largest and the smallest equals the sum of the third and 55, find the numbers

46. The altitude of a triangle is five-thirds the length of its corresponding base. If the altitude be increased by 4 cm , and the base decreased by 2cm, the area of the triangle remains the same. Find the base and altitude of the triangle

47. A streamer goes downstream from point A to B in 9hrs. From B to A, upstream, it takes 10h. If the speed of the stream is 1km/hr, what will be the speed of streamer in still water? Also find distance between the points A and B.

48. Divide 150 into three parts, such that the second number is five-sixths the first and the third number is four-fifths the second

49. The ages of Sonu and Monu are in the ratio 5:7. If Sonu were 9yearsolder and Monu 9years younger, the age of Sonu would have been twice the age of Monu. Find their ages

50. Two years ago, Dalip was three times as old as his son and two years hence, twice his age will be equal to five times that of his son. Find their present ages. Check your solution

51. The distance between two stations is 425km. Two trains start simultaneously from these stations on parallel tracks to cross each other. The speed of one of them is greater than that of the other by 5km/h. If the distance between the two trains after 3h of their start is 20km, find the speed of each train. Check your solution

52. The length of a rectangle exceeds its breadth by 9cm. If the length and breadth are each increased by 3cm, the area of the new rectangle will be 84cm2more than that of the given rectangle. Find the length and breadth of the given rectangle. Check your solution.

53. The digit in the tens place of a two-digit number is three times that in the units place. If the digits are reversed, the new number will be 36 less than the original number. Find the original number

54. A motor boat covers a certain distance downstream in a river in 5 hours. It covers the same distance upstream in 6 hours. The speed of water is 2 km/hr . Find the speed of the boat in still water.

55. Three prizes are to be distributed in a quiz contest. The value of the second prize is five sixths the value of the first prize and the value of the third prize is four – fifths that of the second prize. If the total value of three prizes is Rs. 150, find the value of each prize.

56. Each side of a triangle is increased by 10 cm. If the ratio of the perimeters of the new triangle and the given triangle is 5 : 4, find the perimeter of the given triangle

57. The difference between two positive integers is 36. The quotient, when one integer is divided by the other is 4. Find the two integers.

58. Amina thinks of a number and subtracts 5/2 from it. She multiplies the result by 8. The final result is 3 times her original number. Find the number

59. A positive number is 5 times another number. If 21 is added to both the numbers then one of the new numbers becomes twice of another new numbers. Find the original numbers.

60. Sum of the digits of a two digit number is 9. When we interchange the digits the new number is 27 greater than the earlier number. Find the number.

MCQ WORKSHEET-I
CLASS VIII: CHAPTER - 3
UNDERSTANDING QUADRILATERALS

1. A simple closed curve made up of only _____ is called a polygon .
(a)curves (b) line segments (c) lines (d) closed curves

2. A polygon with minimum number of sides is
(a) Pentagon (b) Square (c) triangle (d) angle

3. Polygons that have no portions of their diagonals in their exteriors are called
(a) Squares (b) triangles (c) convex (d) concave

4. Polygons that have any portions of their diagonals in their exteriors are called
(a) Squares (b) triangles (c) convex (d) concave

5. All the sides of a regular polygon are _____.
(a) Parallel (b) equal in length (c) not parallel (d) not equal

6. All the angles of a regular polygon are of _____.
(a) 90^o (b) 60^o (c) equal measure (d) equal length

7. Sum of all interior angles of a polygon with (n) sides is given by
(a) $(n - 2) \times 180^o$ (b) $n - 2 \times 180^o$ (c) $(n + 2) \times 180^o$ (d) $n + 2 \times 180^o$

8. Maximum number of right angles in a right angled triangle are
(a) 2 (b) 1 (c) 3 (d) 0

9. Sum of all interior angles of a parallelogram is
(a) 180^o (b) 360^o (c) 540^o (d) 240^o

10. The angle sum of all interior angles of a convex polygon of sides 7 is
(a) 180^o (b) 540^o (c) 630^o (d) 900^o

11. Each exterior angle of a regular hexagon is of measure
(a) 120^o (b) 80^o (c)100^o (d) 60^o

12. The number of sides in a regular polygon is 15 , then measure of each exterior angle is
(a) 24^o (b) 36^o (c)20^o (d)18^o

13. How many diagonals does have in a convex quadrilateral?
(a) 2 (b) 1 (c) 3 (d) none of these

14. How many diagonals does have in a regular hexagon?
(a) 2 (b) 1 (c) 3 (d) none of these

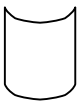
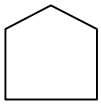
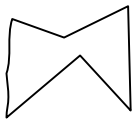
15. How many diagonals does have in a traingle?
(a) 2 (b) 1 (c) 0 (d) none of these

MCQ WORKSHEET-II
CLASS VIII: CHAPTER - 3
UNDERSTANDING QUADRILATERALS

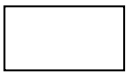
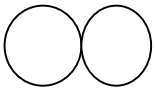
1. The measure of each interior angle of a regular polygon is 140^o, then number of sides that regular polygon has _____

(a) 15 (b) 12 (c) 9 (d) 10

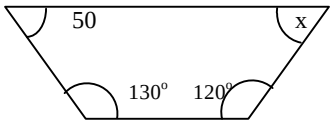
2. Which of the following polygons is convex polygon ?

(a)  (b)  (c)  (d) 

3. Which of the following is concave polygon?

(a)  (b)  (c)  (d) 

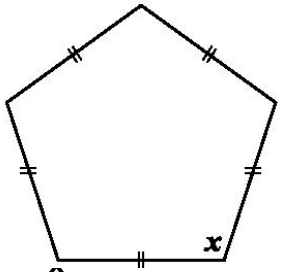
4. The value of (x) in the following figure is



(a)120^o (b)80^o
(c)100^o (d)60^o

5. A quadrilateral which has 2 pairs of equal adjacent sides but unequal opposite sides is called _____ .

(a)parallelogram (b)rhombus (c)kite (d)square

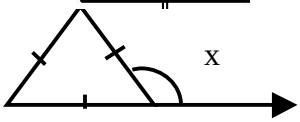


6. The value of *x* in the following figure is

(a)100^o (b)90^o
(c)108^o (d)120^o

7. The value of *x* in the following figure is

(a)120^o (b)180^o (c)60^o (d)100^o



8. A parallelogram each of whose angles measures 90^o is _____.

(a)rectangle (b)rhombus (c)kite (d)trapezium

9. A parallelogram whose all sides are equal is called

(a)square (b)rhombus (c)rectangle (d) trapezium

10. The diagonals of a rhombus bisect each other at _____ angles.

(a) acute (b) right (c) obtuse (d) reflex

11. Diagonals of a rectangle:

(a)equal to each other (b)not equal
(c) one is double of the other (d) none of these

12. The diagonals of a square bisect each other at _____ angle.

(a)acute (b)right (c)obtuse (d)reflex

MCQ WORKSHEET-III
CLASS VIII: CHAPTER - 3
UNDERSTANDING QUADRILATERALS

1. The value of *x* in the following figure is:
(a)60^o (b)70^o (c)180^o (d)90^o

2. Minimum possible interior angle in a regular polygon is _____.
(a) 70^o (b) 60^o (c) 90^o (d)120^o

3. Maximum possible exterior angle in a regular polygon is _____.
(a) 70^o (b) 60^o (c) 90^o (d)120^o

4. How many sides does a heptagon have ?
(a) 2 (b) 4 (c) 7 (d) 5

5. Name the closed figure with 4 sides ?
(a) Hexagon (b) Triangle (c) Pentagon (d) Quadrilateral

6. How many diagonals does a regular Hexagon has ?
(a)2 (b) 9 (c)3 (d) 5

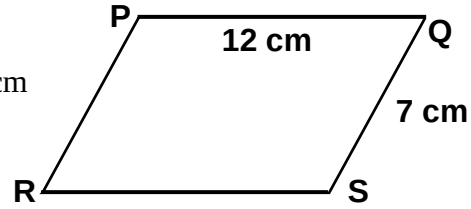
7. What is the number of sides in Hexagon ?
(a) 4 (b) 7 (c) 6 (d) 5

8. What is the sum of the measures of angles of a convex quadrilaterals?
(a) 180^o (b) 90^o (c) 360^o (d) 45^o

9. If the three angles of a quadrilateral are 120^o , 130^o, 10^o then what is the fourth angle ?
(a)30^o (b)100^o (c) 40^o (d) 90^o

10. The opposite angles of a parallelogram are _____.
(a) Unequal (b) equal (c) complementary (d) supplementary

11. The perimeter of parallelogram PQRS is:
(a) 12 cm (b) 7 cm (c) 38 cm (d) 19 cm



12. The diagonals of a square are _____ each other .
(a) equal to (b) unequal to
(c) perpendicular bisectors of (d) none of these

13. A parallelogram with sides of equal length is called_____.
(a) trapezium (b) square (c) rectangle (d) rhombus

14. How many measurements can determine a quadrilateral uniquely?
(a) 2 (b)3 (c)4 (d) 5

15. Diagonals of a parallelogram _____ each other.
(a) bisect (b)equal to (c)perpendicular to (d)none of these

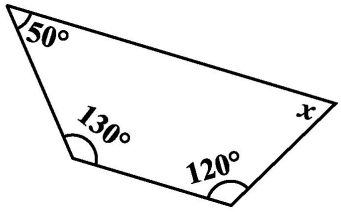
PRACTICE QUESTIONS
CLASS VIII: CHAPTER - 3
UNDERSTANDING QUADRILATERALS

1. How many diagonals does each of the following have?
(a) A convex quadrilateral (b) A regular hexagon (c) A triangle

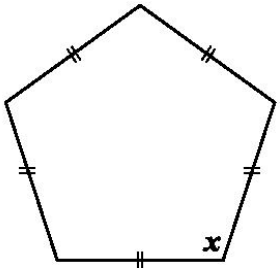
2. What is the sum of the measures of the angles of a convex quadrilateral? Will this property hold if the quadrilateral is not convex? (Make a non-convex quadrilateral and try!)

3. What is a regular polygon? State the name of a regular polygon of (i) 3 sides (ii) 4 sides (iii) 6 sides

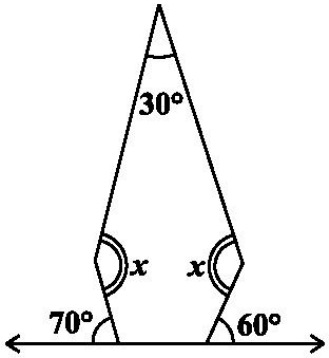
4. Find the angle measure *x* in the figures.



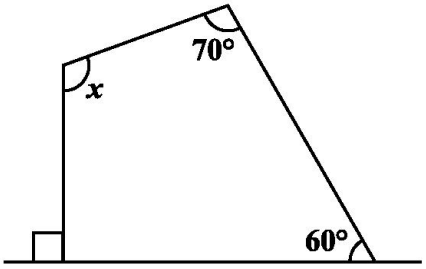
5. Find the angle measure *x* in the figures.



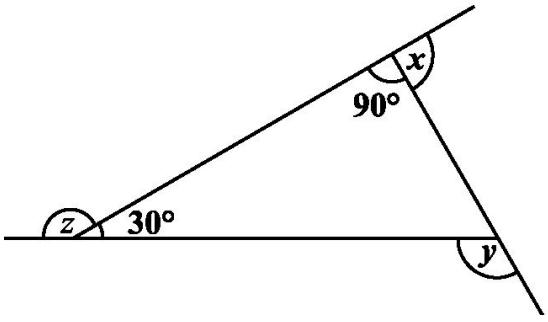
6. Find the angle measure *x* in the figures.



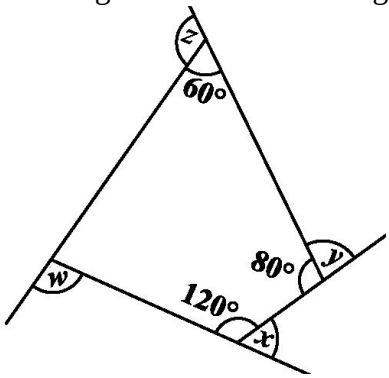
7. Find the angle measure *x* in the figures.



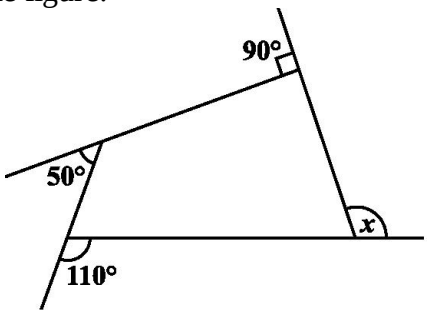
8. Find the angle measure *x* in the figures.



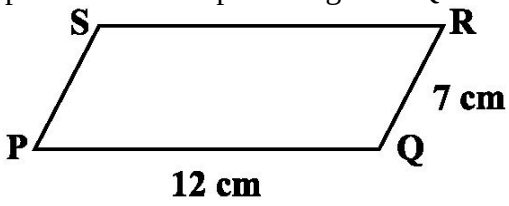
9. Find the angle measure *x* in the figures.



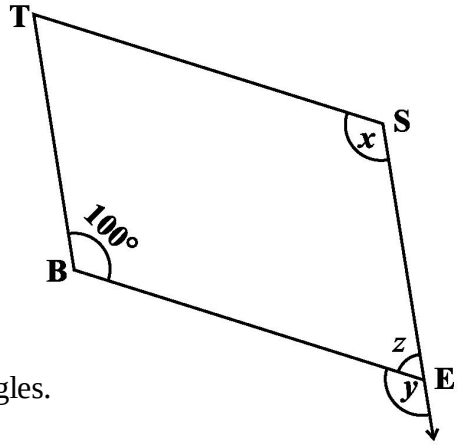
10. Find the angle measure x in the figure:



11. Find the number of sides of a regular polygon whose each exterior angle has a measure of 45°.
12. Find the measure of each exterior angle of a regular polygon of (i) 9 sides (ii) 15 sides
13. How many sides does a regular polygon have if the measure of an exterior angle is 24°?
14. How many sides does a regular polygon have if each of its interior angles is 165°?
15. Find the perimeter of the parallelogram PQRS

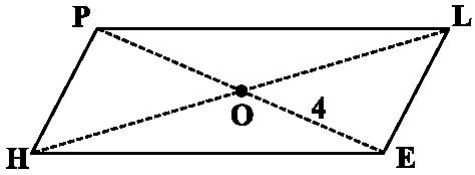


16. In Fig, BEST is a parallelogram. Find the values *x*, *y* and *z*.

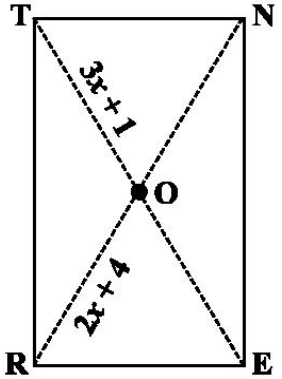


17. In a parallelogram RING, if $m\angle R = 70°$, find all the other angles.

18. In Fig HELP is a parallelogram. (Lengths are in cms). Given that OE = 4 and HL is 5 more than PE? Find OH.



19. RENT is a rectangle. Its diagonals meet at O. Find *x*, if OR = $2x + 4$ and OT = $3x + 1$.



20. Find the number of sides of a regular polygon whose each exterior angle has a measure of 15°.

ASSIGNMENT QUESTIONS
CLASS VIII: CHAPTER - 3
UNDERSTANDING QUADRILATERALS

1. Two adjacent angles of a parallelogram are as 2 : 3. Find the measure of each of its angles.

2. ABCD is a parallelogram in which $\angle A = 75°$. Find the measure of each of the angles $\angle B$, $\angle C$ and $\angle D$.

3. The external angle of a regular polygon is 20^0. How many sides does it have ? What is the measure of each interior angle? What is the total measure of its angles.

4. Is it possible to have a regular polygon with measure of each exterior angle as 580 ? Why? can it be an interior angle of a regular polygon ?

5. Find the measure of each exterior angle of a (i) Regular octagon (ii) Regular Decagon

6. Find the perimeter of a parallelogram with sides 9cm and 5cm.

7. Find the perimeter of a rhombus whose diagonals are 16cm and 12cm

8. The adjacent angles of a parallelogram are in the ratio 5:4 . Find all the angles.

9. If one of the angles of a parallelogram is a right angle, prove that it is a rectangle.

10. If all the angles of a parallelogram are equal. Prove that it is a rectangle.

11. Find the length of the diagonal of a rectangle whose length is 15cm and breadth is 8cm.

12. The measure of two adjacent angles of a quadrilateral are 1100 and 500 and the other two acute angles are equal. Find the measure of each angle.

13. The five angles of a pentagon are in the ratio 5 : 6 : 7: 8 :10. Find all the angles.

14. GOAL is a quadrilateral in which GO || AL. If $\angle G = \angle O = 40^0$. What are the measures of $\angle A$ and $\angle L$.

15. ABCD is a rhombus whose diagonals AC and BD intersect at a point O. If side AB = 10cm and diagonal BD = 16 cm, find the length of diagonal AC.

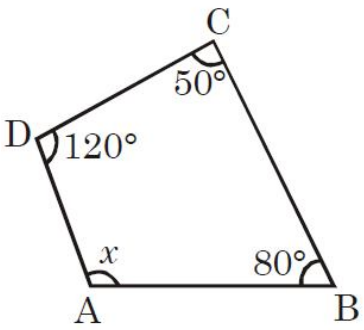
16. One of the diagonals of a rhombus is equal to one of its sides. Find the angles of the rhombus.

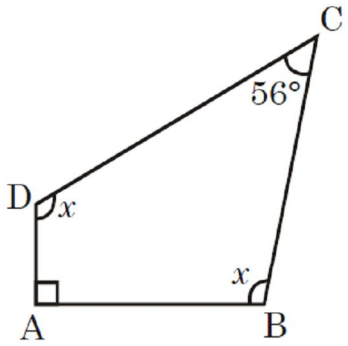
17. The diagonals of a rhombus ABCD intersect at O. If $\angle ADC = 120°$ and OD = 6 cm, find (i) OAD (ii) side AB (iii) perimeter of the rhombus ABCD.

18. ABCD is a trapezium where AB parallel to CD. measure of $\angle A = \angle B = 45^0$. Prove that AD=BC.

19. Three angles of a quadrilateral are in the ratio 3:4:5. The difference of the least and the greatest of these angles is 45. Find all the four angles of the quadrilateral.

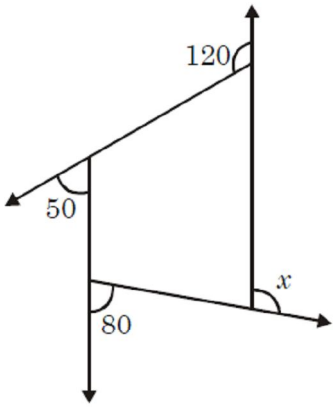
20. In the below figure, ABCD is a quadrilateral. Find x.

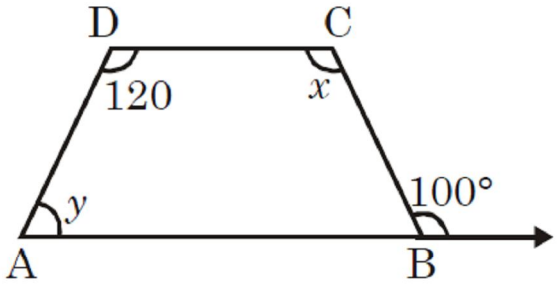




21. In the above right sided figure, ABCD is a quadrilateral. Find x.

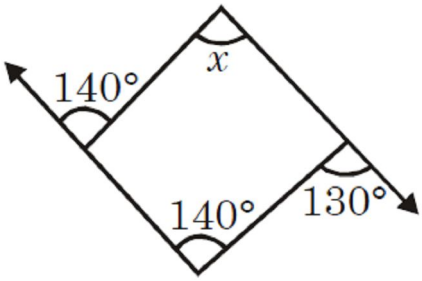
22. In the below figure. Find *x*.

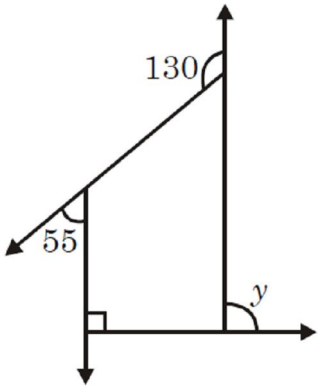




23. In the above right sided figure, ABCD is a quadrilateral in which AB||CD. Find x and y.

24. In the below figure, find x





25. In the above right sided figure, find the value of y.

26. What is the measure of each exterior angle of a regular polygon of 10 sides?

27. How many sides does a regular polygon has if each of its interior angle is 160°?

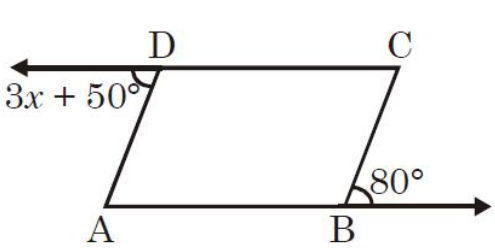
28. If the total angle sum of a polygon is 108° then how many sides does polygon has?

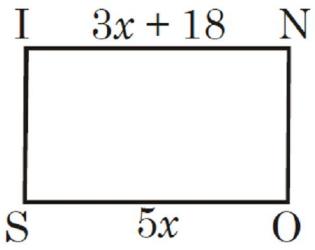
29. *ABCD* is a parallelogram. The perimeter is 144 cm and *BC* = 20 cm then find *AB*.

30. The ratio of two adjacent sides of a parallelogram is 5:4. Its perimeter is 18 cm then, what is the length of the adjacent sides.

31. *PQRS* is a parallelogram and diagonals *PR* and *SQ* bisect at *O*. If *PO* = 3.5 cm and *OQ* = 4.1 cm. What is the length of the diagonals.

32. In the below figure, *ABCD* is a parallelogram. What is the value of *x*?





33. In the above right figure, *SONI* is a rectangle. What is the length of *IN* ?

34. In a parallelogram *ABCD*, $\angle B = \angle C$. What is the degree measure of $\angle B$ and $\angle C$.

35. In a parallelogram *ABCD* the point of intersection of both diagonals *AC* and *BD* is *O*. If *AC* = 16 cm and *BD* = 12 cm then what is *OA* and *OD*.

36. *ABCD* is a rhombus. If *AB* = 4 cm then what is the perimeter of *ABCD?*

37. *PQRS* is a rhombus. If *PO* = 4 cm and *OQ* = 3 cm then what is *PR* + *SQ*?

38. *PQRS* is a rhombus with *PQ* = 10 cm. If *OQ* = 6 cm then what is the length of the diagonal *PR*?

39. In a rhombus *RSTU* if $\angle R = 120^0$, then what is the measure of *S*.

40. *ABCD* is a rhombus in which *AO* = 4cm and *OB* = 3 cm. What is the length of the side of the rhombus?

PRACTICE QUESTIONS
CLASS VIII: CHAPTER - 4
PRACTICAL GEOMETRY

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

2. Construct the Quadrilateral ABCD where AB = 4.5 cm, BC = 5.5 cm, CD = 4 cm, AD = 6 cm and AC = 7 cm.

3. Construct Quadrilateral JUMP where JU = 3.5 cm, UM = 4 cm, MP = 5 cm, PJ = 4.5 cm and PU = 6.5 cm

4. Construct Parallelogram MORE where OR = 6 cm, RE = 4.5 cm and EO = 7.5 cm

5. Construct Rhombus BEST where BE = 4.5 cm and ET = 6 cm

6. Construct a quadrilateral ABCD, given that BC = 4.5 cm, AD = 5.5 cm, CD = 5 cm the diagonal AC = 5.5 cm and diagonal BD = 7 cm.

7. Construct quadrilateral LIFT where LI = 4 cm, IF = 3 cm, TL = 2.5 cm, LF = 4.5 cm and IT = 4 cm

8. Construct Rhombus BEND where BN = 5.6 cm and DE = 6.5 cm

9. Construct a quadrilateral MIST where MI = 3.5 cm, IS = 6.5 cm, $\angle M = 75°$, $\angle I = 105°$ and $\angle S = 120°$.

10. Construct Quadrilateral PLAN where PL = 4 cm, LA = 6.5 cm, $\angle P = 90°$, $\angle A = 110°$ and $\angle N = 85°$

11. Construct Parallelogram HEAR where HE = 5 cm, EA = 6 cm and $\angle R = 85°$

12. Construct a quadrilateral ABCD, where AB = 4 cm, BC = 5 cm, CD = 6.5 cm and $\angle B = 105°$ and $\angle C = 80°$.

13. Draw a square of side 4.5 cm.

14. Construct the kite EASY if AY = 8 cm, EY = 4 cm and SY = 6 cm. Which properties of the kite did you use in the process?

15. Construct a rhombus whose diagonals are 5.2 cm and 6.4 cm long.

16. Construct a rectangle with adjacent sides of lengths 5 cm and 4 cm.

17. Construct a square READ with RE = 5.1 cm.

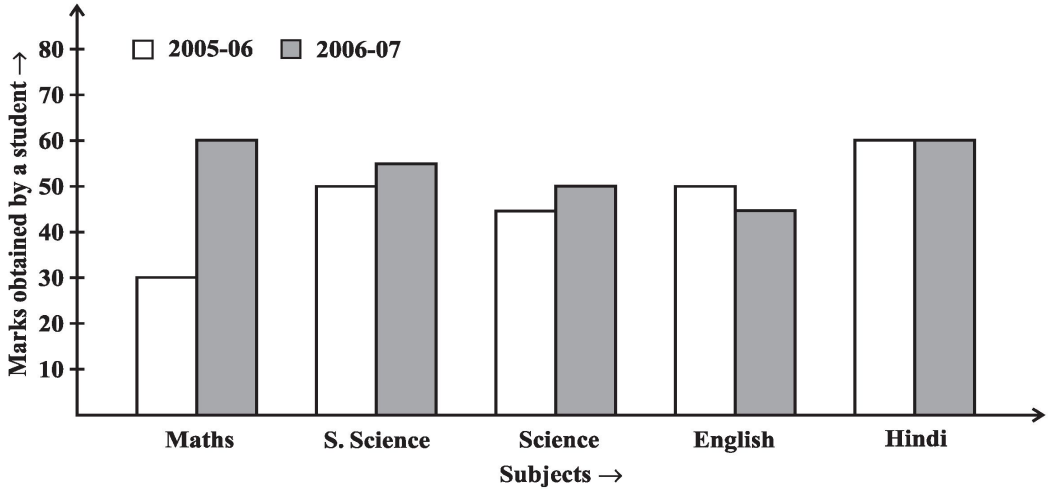
18. Construct a parallelogram OKAY where OK = 5.5 cm and KA = 4.2 cm.

19. Is it possible to construct a rhombus ABCD where AC = 6 cm and BD = 7 cm? Justify your answer.

20. Construct Quadrilateral TRUE where TR = 3.5 cm, RU = 3 cm, UE = 4 cm, $\angle R = 75°$ and $\angle U = 120°$

MCQ WORKSHEET-I
CLASS VIII: CHAPTER - 5
DATA HANDLINGS

Following bar graph shows marks obtained by a student in 2005–06 and 2006–07 subject wise. Read and answer the questions from Q1 – Q10



1. In which subject has the performance improved the most?
(a) Maths (b) Science (c) S. Science (d) none of these

2. In which subject has the performance deteriorated?
(a) English (b) Science (c) S. Science (d) none of these

3. In which subject is the performance at par?
(a) Hindi (b) Science (c) S. Science (d) none of these

4. Find the marks obtained in Maths by a student in 2005–06 ?
(a) 30 (b) 40 (c) 50 (d) 60

5. Find the marks obtained in Maths by a student in 2006–07 ?
(a) 30 (b) 40 (c) 50 (d) 60

6. Find the marks obtained in Hindi by a student in 2005–06 ?
(a) 30 (b) 40 (c) 50 (d) 60

7. Find the marks obtained in Hindi by a student in 2006–07 ?
(a) 30 (b) 40 (c) 50 (d) 60

8. Find the marks obtained in S. Science by a student in 2005–06 ?
(a) 30 (b) 40 (c) 50 (d) 60

9. Find the total marks obtained by a student in 2005–06?
(a) 230 (b) 235 (c) 240 (d) none of these

10. Find the total marks obtained by a student in 2006–07?
(a) 230 (b) 270 (c) 240 (d) none of these

MCQ WORKSHEET-II
CLASS VIII: CHAPTER - 5
DATA HANDLINGS

Frequency Distribution of Daily Income of 550 workers of a factory is given below. Study the following frequency distribution table and answer the questions from Q1 – Q10.

Class Interval (Daily Income in Rupees)	Frequency (Number of workers)
100-125	45
125-150	25
150-175	55
175-200	125
200-225	140
225-250	55
250-275	35
275-300	50
300-325	20
Total	**550**

1. What is the size of class intervals ?
(a) 24 (b) 25 (c) 26 (d) 15

2. Which class has the highest frequency ?
(a) 200-225 (b) 300-325 (c) 175-200 (d) 150-175

3. Which class has the lowest frequency ?
(a) 100-125 (b) 300-325 (c) 175-200 (d) 150-175

4. What is the upper limit of the class interval 250-275?
(a) 250 (b) 275 (c) 25 (d) 525

5. Which two classes have the same frequency?
(a) III & IV (b) I & II (c) II & V (d) V & VI

6. What is the range of the all class interval?
(a) 250 (b) 275 (c) 225 (d) 525

7. What is the lower limit of the class interval 250-275?
(a) 250 (b) 275 (c) 25 (d) 525

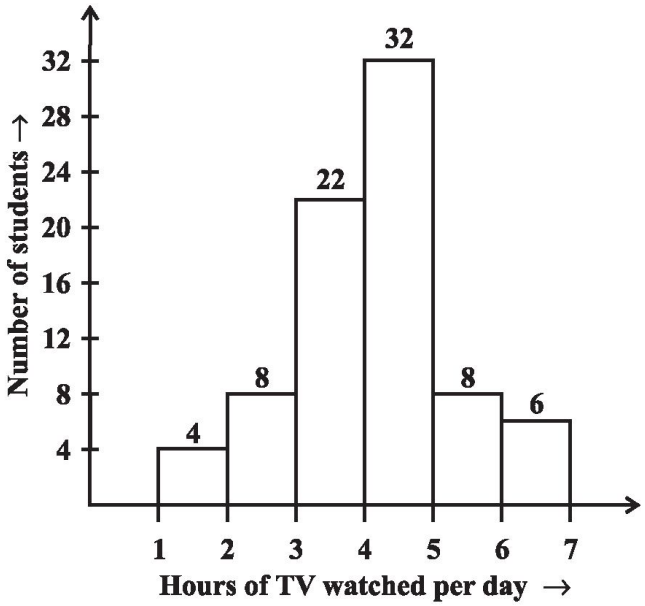
8. What is the total number of workers having daily income less than 250?
(a) 300 (b) 445 (c) 305 (d) 550

9. What is the total number of workers having daily income more than 200?
(a) 300 (b) 445 (c) 305 (d) 550

10. What is the total number of workers having daily income between 150–250?
(a) 300 (b) 445 (c) 375 (d) 550

MCQ WORKSHEET-III
CLASS VIII: CHAPTER - 5
DATA HANDLINGS

The number of hours for which students of particular class watched television during holidays is shown through the graph given below. See and answer the questions from Q1 – Q5.



1. For how many hours did the maximum number of students watch TV ?
(a) 4-5 hrs (b) 6-7 hrs (c) 3-4 hrs (d) 2-3hrs

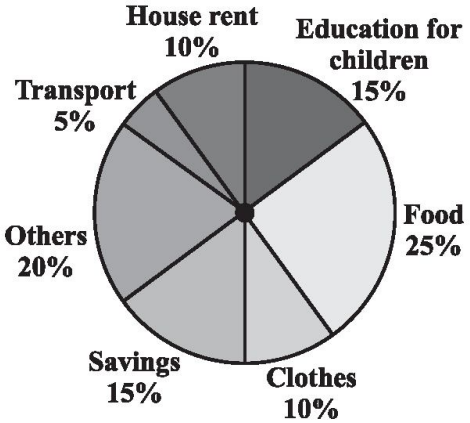
2. How many students watched TV for less than 4 hrs ?
(a) 12 (b) 34 (c) 4 (d) 8

3. How many students spent more than 5 hrs in TV watching ?
(a) 14 (b) 0 (c) 6 (d) 8

4. For how many hours did the minimum number of students watch TV ?
(a) 2-3 hrs (b) 6-7 hrs (c) 1-2 hrs (d) 3-4hrs

5. How many students spent less than 5 hrs in TV watching ?
(a) 34 (b) 32 (c) 8 (d) 66

Adjoining pie-chart gives the expenditure (in %age) on various items and savings of a family during a month. Study the given pie-chart and answer the questions from Q6 – Q10.



6. On which item the expenditure was maximum ?
(a) food (b) education (c) others (d) transport

7. On which item the expenditure was minimum ?
(a) food (b) education (c) others (d) transport

8. Expenditure on which item is equal to total savings of the family ?
(a) food (b) education (c) others (d) transport

9. Expenditure on which item is equal to total savings of the House Rent?
(a) food (b) education (c) clothes (d) transport

If the monthly savings of the family is Rs 3000,

10. What is the monthly income of the family?
(a) 30000 (b) 20000 (c) 25000 (d) 40000

11. What is the monthly expenditure on cloths ?
(a) 3000 (b) 2000 (c) 2500 (d) 1000

12. What is the monthly expenditure on education for children ?
(a) 3000 (b) 2000 (c) 2500 (d) 1000

13. What is the monthly expenditure on education for others?
(a) 3000 (b) 2000 (c) 2500 (d) 4000

14. What is the monthly expenditure on education for Transport?
(a) 3000 (b) 2000 (c) 2500 (d) 1000

15. What is the monthly expenditure on education for Food?
(a) 3000 (b) 5000 (c) 2500 (d) 4000

MCQ WORKSHEET-IV
CLASS VIII: CHAPTER - 5
DATA HANDLINGS

Cards are marked with numbers 1 to 25 are placed in the box and mixed thoroughly. One card is drawn at random from the box. Answer the following questions (Q1-Q10)

1. What is the probability of getting a number 5?

(a) 1 (b) 0 (c) $\frac{1}{25}$ (d) $\frac{1}{5}$

2. What is the probability of getting a number less than 11?

(a) 1 (b) 0 (c) $\frac{1}{5}$ (d) $\frac{2}{5}$

3. What is the probability of getting a number greater than 25?

(a) 1 (b) 0 (c) $\frac{1}{5}$ (d) $\frac{2}{5}$

4. What is the probability of getting a multiple of 5?

(a) 1 (b) 0 (c) $\frac{1}{25}$ (d) $\frac{1}{5}$

5. What is the probability of getting an even number?

(a) 1 (b) 0 (c) $\frac{12}{25}$ (d) $\frac{13}{25}$

6. What is the probability of getting an odd number?

(a) 1 (b) 0 (c) $\frac{12}{25}$ (d) $\frac{13}{25}$

7. What is the probability of getting a prime number?

(a) $\frac{8}{25}$ (b) $\frac{9}{25}$ (c) $\frac{12}{25}$ (d) $\frac{13}{25}$

8. What is the probability of getting a number divisible by 3?

(a) $\frac{8}{25}$ (b) $\frac{9}{25}$ (c) $\frac{12}{25}$ (d) $\frac{13}{25}$

9. What is the probability of getting a number divisible by 4?

(a) $\frac{8}{25}$ (b) $\frac{9}{25}$ (c) $\frac{6}{25}$ (d) $\frac{3}{25}$

10. What is the probability of getting a number divisible by 7?

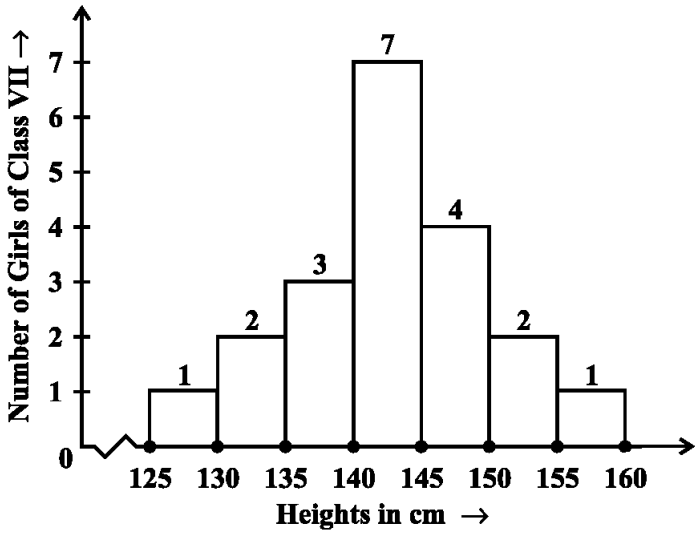
(a) $\frac{8}{25}$ (b) $\frac{9}{25}$ (c) $\frac{6}{25}$ (d) $\frac{3}{25}$

PRACTICE QUESTIONS
CLASS VIII: CHAPTER - 5
DATA HANDLINGS

1. A group of students were asked to say which animal they would like most to have as a pet. The results are given below:
dog, cat, cat, fish, cat, rabbit, dog, cat, rabbit, dog, cat, dog, dog, dog, cat, cow,
fish, rabbit, dog, cat, dog, cat, cat, dog, rabbit, cat, fish, dog.
Make a frequency distribution table for the same.

2. Construct a frequency distribution table for the data on weights (in kg) of 20 students of a class using intervals 30-35, 35-40 and so on.
40, 38, 33, 48, 60, 53, 31, 46, 34, 36, 49, 41, 55, 49, 65, 42, 44, 47, 38, 39.

3. Observe the histogram and answer the questions given below.



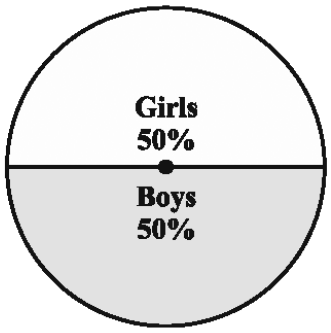
(i) What information is being given by the histogram?
(ii) Which group contains maximum girls?
(iii) How many girls have a height of 145 cms and more?
(iv) If we divide the girls into the following three categories, how many would there be in each?
150 cm and more — Group A
140 cm to less than 150 cm — Group B
Less than 140 cm — Group C

4. The shoppers who come to a departmental store are marked as: man (M), woman (W), boy (B) or girl (G). The following list gives the shoppers who came during the first hour in the morning:
W W W G B W W M G G M M W W W W G B M W B G G M W W M M W W
W M W B W G M W W W W G W M M W W M W G W M G W M M B G G W
Make a frequency distribution table using tally marks. Draw a bar graph to illustrate it.

5. 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. Draw a histogram for the frequency table and answer the following questions.
(i) Which group has the maximum number of workers?
(ii) How many workers earn Rs 850 and more?
(iii) How many workers earn less than Rs 850?

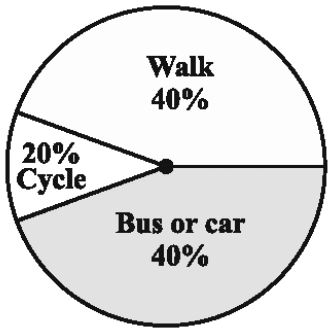
6. Each of the following pie charts gives you a different piece of information about your class. Find the fraction of the circle representing each of these information.

(i)



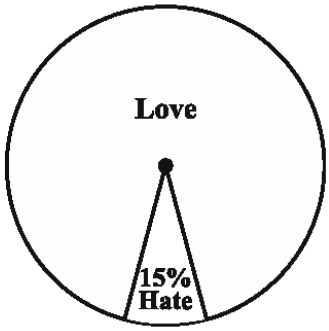
Girls or Boys

(ii)



Transport to school

(iii)



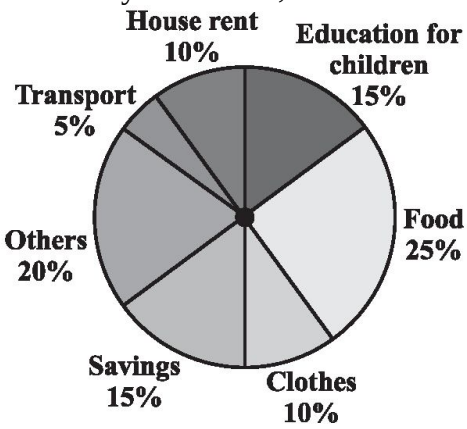
Love/Hate Mathematics

7. Below pie chart gives the expenditure (in percentage) on various items and savings of a family during a month.

(i) On which item, the expenditure was maximum?

(ii) Expenditure on which item is equal to the total savings of the family?

(iii) If the monthly savings of the family is Rs 3000, what is the monthly expenditure on clothes?



8. On a particular day, the sales (in rupees) of different items of a baker's shop are given below. Draw a pie chart for this data.

ordinary bread	: 320
fruit bread	: 80
cakes and pastries	: 160
biscuits	: 120
others	: 40
Total	**: 720**

9. Draw a pie chart of the data given below. The time spent by a child during a day.

Sleep	—	8 hours
School	—	6 hours
Home work	—	4 hours
Play	—	4 hours
Others	—	2 hours

Season	No. of votes
Summer	90
Rainy	120
Winter	150

10. A group of 360 people were asked to vote for their favourite season from the three seasons rainy, winter and summer(shown in above fig.). (i) Which season got the most votes? (ii) Find the central angle of each sector. (iii) Draw a pie chart to show this information.

11. The number of students in a hostel, speaking different languages is given below. Display the data in a pie chart.

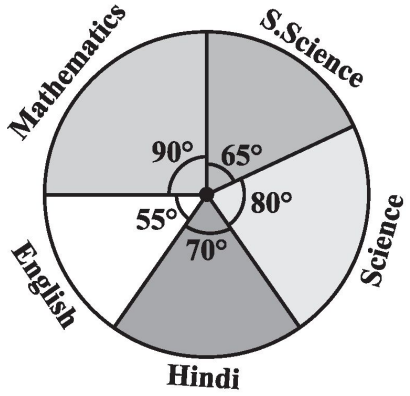
Language	Hindi	English	Marathi	Tamil	Bengali	Total
No. of Students	40	12	9	7	4	72

12. The adjoining pie chart gives the marks scored in an examination by a student in Hindi, English, Mathematics, Social Science and Science. If the total marks obtained by the students were 540, answer the following questions.

(i) In which subject did the student score 105 marks?

(ii) How many more marks were obtained by the student in Mathematics than in Hindi?

(iii) Examine whether the sum of the marks obtained in Social Science and Mathematics is more than that in Science and Hindi.



13. A box contains 3 blue, 2 white, and 4 red marbles. If a marble is drawn at *random* from the box, what is the probability that it will be (i) white? (ii) blue? (iii) red?

14. A die is thrown once. Find the probability of getting (i) a prime number; (ii) a number lying between 2 and 6; (iii) an odd number.

15. A bag contains 3 red balls and 5 black balls. A ball is drawn at random from the bag. What is the probability that the ball drawn is (i) red ? (ii) not red?

16. A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be (i) red ? (ii) white ? (iii) not green?

17. A bag has 4 red balls and 2 yellow balls. A ball is drawn from the bag without looking into the bag. What is probability of getting a red ball?

18. Cards are marked with numbers 1 to 25 are placed in the box and mixed thoroughly. One card is drawn at random from the box. What is the probability that the cards are marked with (i) a prime number (ii) an even number (iii) a number multiple of 5 (iv) a number divisible by 6 and (v) a number 4.

19. When a die is thrown, list the outcomes of an event of getting (i) (a) a prime number (b) not a prime number. (ii) (a) a number greater than 5 (b) a number not greater than 5.

20. Numbers 1 to 10 are written on ten separate slips (one number on one slip), kept in a box and mixed well. One slip is chosen from the box without looking into it. What is the probability of .

(i) getting a number 6?

(ii) getting a number less than 6?

(iii) getting a number greater than 6?

(iv) getting a 1-digit number?

MCQ WORKSHEET-I
CLASS VIII: CHAPTER - 6
SQUARES AND SQUARE ROOTS

1. Which is the smallest three-digit perfect square?
(a) 100 (b) 101 (c) 121 (d) 144

2. Which is the greatest three-digit perfect square?
(a) 999 (b) 961 (c) 962 (d) 970

3. Which is the greatest 4-digit perfect square?
(a) 9999 (b) 9990 (c) 9800 (d) 9801

4. Which is the smallest 4-digit perfect square?
(a) 1024 (b) 1025 (c) 1000 (d) 1016

5. What will be the number of digits in the square root of 25600?
(a) 3 (b) 2 (c) 5 (d) 4

6. What will be the number of digits in the square root of 1296?
(a) 2 (b) 3 (c) 1 (d) 4

7. The square root of 12.25 is _____ .
(a) 3.5 (b) 2.5 (c) 35 (d) 25

8. What is the length of the side of a square whose area is 441 cm^2 ?
(a) 21 (b) 22 (c) 20 (d) 12

9. In a right angle triangle ABC , right angled at B, AB=6cm, BC=8cm ,then AC= ____ .
(a) 10 (b) 12 (c) 21 (d) 14

10. Which least number should be subtracted from 629 so as to get a perfect square ?
(a) 4 (b) 5 (c) 6 (d) 3

11. The square root of 1.21 is
(a) 1.1 (b) 11 (c) 21 (d) 2.1

12. What is the smallest square number which is divisible by each of the numbers 6,9 and 15 ?
(a) 900 (b) 810 (c) 630 (d) 720

13. The square of 1.2 is
(a) 144 (b) 1.44 (c) 14.4 (d) 2.4

14. The square root of 169 is
(a) -13 (b) 1.3 (c) -1.3 (d) $\frac{13}{10}$

15. What is the length of the diagonal of a rectangle having dimensions 3cm and 4cm?
(a) 5 (b) 7 (c) 1 (d) 4

MCQ WORKSHEET-II
CLASS VIII: CHAPTER - 6
SQUARES AND SQUARE ROOTS

1. What will be the length of third side of a right angled triangle whose hypotenuse is 5cm and one of the side is 3 cm ?
(a) 2 (b) 3 (c) 4 (d) 5

2. Which of the following is not a perfect square ?
(a) 81 (b) 18 (c) 100 (d) 121

3. Which is the smallest square number that is divisible by each of the number 4,9 and10?
(a) 900 (b) 810 (c) 800 (d) 920

4. Which of the following is not a square number?
(a) 4 (b) 9 (c) 16 (d) 24

5. The square of 23 is :
(a) 529 (b) 526 (c) 46 (d) 429

6. The square of which of the following would be even number?
(a) 2826 (b) 7779 (c) 1057 (d) 131

7. The square of which of the following would be odd number?
(a) 431 (b) 272 (c) 1234 (d) 7928

8. Which of the following is a perfect square ?
(a) 45 (b) 81 (c) 18 (d) 54

9. What will be the " one's digit" in the square of 1234 ?
(a) 6 (b) 2 (c) 8 (d) 9

10. What will be the number of zeros in the square of 400 ?
(a) 5 (b) 1 (c) 3 (d) 4

11. The perfect square number between 30 and 40 is :
(a) 35 (b) 39 (c) 36 (d) 32

12. Which of the following number would have digit 6 at units place ?
(a) 19^2 (b) 24^2 (c) 25^2 (d) 13^2

13. Which of the following number would have digit 5 at units place :
(a) 95^2 (b) 59^2 (c) 24^2 (d) 42^2

14. Which of the following number would have digit 1 at units place ?
(a) 81^2 (b) 18^2 (c) 54^2 (d) 95^2

15. How many natural numbers lie between 9^2 and 10^2?
(a) 15 (b) 19 (c) 18 (d) 17

MCQ WORKSHEET-III
CLASS VIII: CHAPTER - 6
SQUARES AND SQUARE ROOTS

1. How many non square numbers lie between $11^2$and 12^2?
(a) 21 (b) 23 (c) 22 (d) 20

2. 25 can be express as the sum of first _____consecutive odd numbers .
(a) (b) 4 (c) 6 (d) 3

3. How many numbers lie between square of 12 and 13?
(a) 21 (b) 23 (c)22 (d)24

4. What will be the value of ' x' in Pythagorean triplet (6,8, x)?
(a) 5 (b) 7 (c)10 (d) 11

5. The square of -9 is
(a) -81 (b) 81 (c) 18 (d) -18

6. The square root of 6400 is
(a) 80 (b) 81 (c) 32 (d) 23

7. By which smallest number 90 must be multiplied so as to make it a perfect square ?
(a) 10 (b) 2 (c) 5 (d) 3

8. By which smallest number 48 must be divided so as to make it a perfect square ?
(a) 2 (b) 3 (c) 6 (d) 4

9. Which smallest number should be added to 80 so as to make it a perfect square ?
(a) 2 (b) 3 (c) 1 (d) 4

10. What could be the possible "one's digit" of the square root of 625?
(a) 5 (b) 0 (c) 4 (d) 8

11. The Smallest number by which 12348 must be divided to obtain a perfect square is
(a) 3 (b) 5 (c) 4 (d) 7

12. $\sqrt{0.9}$ = ?
(a) 3 (b) 0.3 (c) 0.03 (d) 0.33

13. $\sqrt{1.0816}$ = ?
(a) 1.04 (b) 1.286 (c) 0.904 (d) 1.35

14. $\frac{\sqrt{288}}{\sqrt{128}}$ = ?
(a) $2\frac{1}{14}$ (b) $2\frac{3}{14}$ (c) $2\frac{5}{14}$ (d) $2\frac{9}{14}$

15. $\sqrt{0.9} \times \sqrt{1.6}$ = ?
(a) 0.12 (b) 1.2 (c) 0.75 (d) 12

PRACTICE QUESTIONS
CLASS VIII: CHAPTER - 6
SQUARES AND SQUARE ROOTS

1. Find the perfect square numbers between (i) 30 and 40 (ii) 50 and 60

2. Which of 123^2, 77^2, 82^2, 161^2, 109^2 would end with digit 1?

3. Which of the following numbers would have digit 6 at unit place.
(i) 19^2 (ii) 24^2 (iii) 26^2 (iv) 36^2 (v) 34^2

4. What will be the "one's digit" in the square of the following numbers?
(i) 1234 (ii) 26387 (iii) 52698 (iv) 99880 (v) 21222 (vi) 9106

5. The square of which of the following numbers would be an odd number/an even number? Why?
(i) 727 (ii) 158 (iii) 269 (iv) 1980

6. What will be the number of zeros in the square of the following numbers?
(i) 60 (ii) 400

7. How many natural numbers lie between 9^2 and 10^2 ? Between 11^2 and 12^2?

8. How many non square numbers lie between the following pairs of numbers
(i) 100^2 and 101^2 (ii) 90^2 and 91^2 (iii) 1000^2 and 1001^2

9. Find whether each of the following numbers is a perfect square or not?
(i) 121 (ii) 55 (iii) 81 (iv) 49 (v) 69

10. Express the following as the sum of two consecutive integers.
(i) 21^2 (ii) 13^2 (iii) 11^2 (iv) 19^2

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

12. How many numbers lie between squares of the following numbers?
(i) 12 and 13 (ii) 25 and 26 (iii) 99 and 100

13. Find the square of the following numbers without actual multiplication.
(i) 39 (ii) 42

14. Find the squares of the following numbers containing 5 in unit's place.
(i) 15 (ii) 95 (iii) 105 (iv) 205

15. Write a Pythagorean triplet whose smallest member is 8.

16. Find a Pythagorean triplet in which one member is 12.

17. Write a Pythagorean triplet whose one member is.
(i) 6 (ii) 14 (iii) 16 (iv) 18

18. By repeated subtraction of odd numbers starting from 1, find whether the following numbers are perfect squares or not? If the number is a perfect square then find its square root.
(i) 121 (ii) 55 (iii) 36 (iv) 49 (v) 90

19. Find the square root of 6400.

20. Is 2352 a perfect square? If not, find the smallest multiple of 2352 which is a perfect square. Find the square root of the new number.

21. Find the smallest number by which 9408 must be divided so that the quotient is a perfect square. Find the square root of the quotient.

22. Find the smallest square number which is divisible by each of the numbers 6, 9 and 15.

23. Find the square roots of 100 and 169 by the method of repeated subtraction.

24. Find the square roots of the following numbers by the Prime Factorisation Method.
(i) 729 (ii) 400 (iii) 1764 (iv) 4096 (v) 7744

25. 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.

26. Find the smallest square number that is divisible by each of the numbers 4, 9 and 10.

27. Find the smallest square number that is divisible by each of the numbers 8, 15 and 20.

28. Find the square root of : (i) 729 (ii) 1296

29. Find the least number that must be subtracted from 5607 so as to get a perfect square. Also find the square root of the perfect square.

30. Find the greatest 4-digit number which is a perfect square.

31. Find the least number that must be added to 1300 so as to get a perfect square. Also find the square root of the perfect square.

32. Find the square root of 12.25.

33. Area of a square plot is 2304 m2. Find the side of the square plot.

34. There are 2401 students in a school. P.T. teacher wants them to stand in rows and columns such that the number of rows is equal to the number of columns. Find the number of rows.

35. Find the least number which must be subtracted from 1989 so as to get a perfect square. Also find the square root of the perfect square so obtained.

36. Find the least number which must be added to 1750 so as to get a perfect square. Also find the square root of the perfect square so obtained.

37. Find the length of the side of a square whose area is 441 m^2.

38. In a right triangle ABC, $\angle B = 90°$.
(a) If AB = 6 cm, BC = 8 cm, find AC (b) If AC = 13 cm, BC = 5 cm, find AB

39. 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 same. Find the minimum number of plants he needs more for this.

40. 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.

ASSIGNMENT QUESTIONS
CLASS VIII: CHAPTER - 6
SQUARES AND SQUARE ROOTS

1. Which are the digits the square number can have at units place?

2. How many 2's are there in the prime factors of 300?

3. How many 5's are there in the prime factors of 13000?

4. How many digits will be there in the square root of 12321?

5. How much is $45^2 - 44^2$?

6. Find the value of $(39 + 21)^2$.

7. What is the missing digit in $(37)^2 = 136 - ?$

8. Find the value of $121^2 - 120^2$.

9. Simplify and give the answer : $\sqrt{62 \times 28}$.

10. How many natural nos lie between 562 and 572.

11. What is the square of $\frac{19}{20}$

12. Find the square of (3.1).

13. How much is $(0.1)^2$?

14. Find the value of $\sqrt{0.0081}$.

15. Give the square number between 36 and 64.

16. How many square numbers lie between 81 and 225?

17. Find the least number which when added to 599 to make it a perfect square.

18. In a cinema hall 729 people are seated in such a way that the number of people in a row is equal to number of rows. Then how many rows of people are there in the hall?

19. The length of a rectangular park is 80m and breadth is 60m. Find the length of its diagonal.

20. Give one Pythagorean triplet in which one of the number is 12.

21. Find the smallest number which when multiplied by 180 makes it a perfect square.

22. If the area of a square is 38.44 sq. cm. then find the side of the square.

23. A rectangular paper of length 45cm and breadth 5 cm is cut to form a square with the same area. What is the side of the square?

24. Find the least number by which 200 must be multiplied to make it a perfect square.

25. Find the least number by which 384 must be divided to make it a perfect square

26. Find the square root of 529 using long division method.

27. Find the square root of 6.0516 Find the least number, which must be subtracted from 3250 to make it a perfect square

28. Find the least number, which must be added to 1825 to make it a perfect square

29. Find the square root of 3 correct to two places of decimal.

30. Find the length of the side of a square where area is 441 m^2.

MCQ WORKSHEET-I
CLASS VIII: CHAPTER - 7
CUBES AND CUBE ROOTS

1. Which is the smallest three-digit perfect cube?
(a) 125 (b) 343 (c) 729 (d) 512

2. Which is the greatest three-digit perfect cube?
(a) 125 (b) 343 (c) 729 (d) 512

3. Which of the following is not a perfect cube ?
(a) 1 (b) 9 (c) 8 (d) 27

4. The cube of 4 is _____ .
(a) 12 (b) 8 (c) 4 (d) 64

5. The value of 5^3 is _____ .
(a) 125 (b) 15 (c) 10 (d) 75

6. The cube of an even number is always _____ .
(a) odd number (b) even number (c) prime number (d) none of these

7. The cube of an odd number is always _____ .
(a) odd number (b) even number (c) prime number (d) none of these

8. Each prime factor appears _____ times in its cube?
(a) 2 (b) 3 (c) 1 (d) 4

9. Which of the following is Hardy-Ramanujan Number ?
(a) 1724 (b)1725 (c) 1727 (d) 1729

10. By which smallest natural number 392 must be multiplied so as to make the product a perfect cube ?
(a) 2 (b) 14 (c) 7 (d) 49

11. The smallest natural number by which 243 must be multiplied to make the product a perfect cube is _____ .
(a) 3 (b) 9 (c) 8 (d) 7

12. The smallest natural number by which 704 must be divided to obtain a perfect cube is
(a) 22 (b) 12 (c) 11 (d) 13

13. The smallest natural number by which 135 must be divided to obtain a perfect cube is
(a) 5 (b) 3 (c) 15 (d) 9

14. Which of the following is not a perfect cube ?
(a) 216 (b) 343 (c) 125 (d) 108

15. The expansion of a^3 is _____ .
(a) $3 \times a$ (b) a+a+a (c) $3 \times 3 \times 3$ (d) $a \times a \times a$

MCQ WORKSHEET-II
CLASS VIII: CHAPTER - 7
CUBES AND CUBE ROOTS

1. What will be the unit digit of the cube of a number ending with 2 ?
(a) 8 (b) 4 (c) 2 (d) 6

2. What will be the unit digit of the cube of a number ending with 4 ?
(a) 4 (b) 6 (c) 2 (d) 8

3. What will be the unit digit of the cube of a number ending with 6 ?
(a) 4 (b) 6 (c) 2 (d) 8

4. A cuboid has dimensions 5cm , 2cm, 5cm .How many such cuboid will be needed to form a cube ?
(a) 20 (b) 10 (c) 5 (d) 2

5. How many cuboids of dimensions 15cm, 30cm ,15cm will be needed to form a cube ?
(a) 15 (b) 4 (c) 30 (d) 5

6. 729 is the value of _____ .
(a) 8^3 (b) 9^3 (c) 6^3 (d) 4^3

7. Which of the following is a perfect cube ?
(a) 125 (b) 135 (c) 145 (d) 115

8. What is the volume of a cube whose edge is 2cm ?
(a) 8 (b) 6 (c) 10 (d) 4

9. The symbol for cube root is _____ .
(a) $\sqrt{\ }$ (b) $\sqrt[3]{\ }$ (c) $\sqrt[4]{\ }$ (d) none of these

10. The cube root of 512 is _____ .
(a) 8 (b) 32 (c) 16 (d) 2

11. The value of $\sqrt[3]{343}$ is ____ .
(a) 8 (b) 7 (c) 6 (d) 3

12. Which of the following is true for any natural number n?
(a) $n^2>n^3$ (b) $n^3>n^2$ (c) $n^2=n^3$ (d) none of these

13. If the volume of a cube is 125 cm3 then what would be the length of its side?
(a) 25 (b) 5 (c) 4 (d) 15

14. What will be the unit digit of the cube root of a number ends with 8?
(a) 2 (b) 8 (c) 4 (d) 6

15. What will be the unit digit of the cube root of a number ends with 2?
(a) 2 (b) 8 (c) 4 (d) 6

MCQ WORKSHEET-III
CLASS VIII: CHAPTER - 7
CUBES AND CUBE ROOTS

1. What will be the unit digit of the cube root of a number ends with 3?
(a) 3 (b) 7 (c) 5 (d) 2

2. What will be the unit digit of the cube root of a number ends with 7?
(a) 3 (b) 7 (c) 6 (d) 5

3. 9 is the cube root of _____ .
(a) 343 (b) 729 (c) 629 (d) 81

4. The number of digits in the cube root of a 6-digit number is _____ .
(a) 3 (b) 2 (c) 4 (d) 6

5. How many digits will be there in the cube root of 46656 ?
(a) 2 (b) 1 (c) 3 (d) 4

6. How many digits will be there in the cube root of 512 ?
(a) 1 (b) 2 (c) 3 (d) 4

7. What will be the unit digit of $\sqrt[3]{15625}$?
(a) 5 (b) 0 (c) 3 (d) 4

8. How many zeros will be there in the cube root of 27000?
(a) 3 (b) 0 (c) 1 (d) 2

9. How many zeros will be there in the cube root of 800?
(a) 3 (b) 0 (c) 1 (d) cube root does not exist

10. If $7^3=343$, then $\sqrt[3]{343}$ = _____ .
(a) 3 (b) 7 (c) 13 (d) 9

11. If $8^3=512$, then $\sqrt[3]{512}$ = _____ .
(a) 3 (b) 7 (c) 13 (d) 9

12. What will be the unit digit of $\sqrt[3]{216}$?
(a) 3 (b) 6 (c) 4 (d) 2

13. Find the one's digit of the cube of 149
(a) 2 (b) 3 (c) 9 (d) none of these

14. Find the cube root of 8000.
(a) 20 (b) 200 (c) 40 (d) none of these

15. Find the cube root of 0.0027.
(a) 3 (b) 0.3 (c) 0.03 (d) none of these

PRACTICE QUESTIONS
CLASS VIII: CHAPTER - 7
CUBES AND CUBE ROOTS

1. Find the one's digit of the cube of each of the following numbers.
(i) 3331 (ii) 8888 (iii) 149 (iv) 1005 (v) 1024 (vi) 77 (vii) 5022 (viii) 53

2. Express the following numbers as the sum of odd numbers using the pattern?
(a) 6^3 (b) 8^3 (c) 7^3

3. Which of the following are perfect cubes?
1. 400 2. 3375 3. 8000 4. 15625 5. 9000 6. 6859

4. Is 392 a perfect cube? If not, find the smallest natural number by which 392 must be multiplied so that the product is a perfect cube.

5. Is 53240 a perfect cube? If not, then by which smallest natural number should 53240 be divided so that the quotient is a perfect cube?

6. Is 1188 a perfect cube? If not, by which smallest natural number should 1188 be divided so that the quotient is a perfect cube?

7. Is 68600 a perfect cube? If not, find the smallest number by which 68600 must be multiplied to get a perfect cube.

8. Check which of the following are perfect cubes.
(i) 2700 (ii) 16000 (iii) 64000 (iv) 900 (v) 125000 (vi) 36000 (vii) 21600 (viii) 10,000

9. Find the smallest number by which 256 must be multiplied to obtain a perfect cube.

10. Find the smallest number by which 192 must be divided to obtain a perfect cube.

11. 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?

12. Find the cube root of 8000.

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

14. Find the cube root of 17576 through estimation.

15. You are told that 1,331 is a perfect cube. Can you guess without factorisation what is its cube root? Similarly, guess the cube roots of 4913, 12167, 32768.

16. Find the cube root of each of the following numbers by prime factorisation method.
(i) 64 (ii) 512 (iii) 10648 (iv) 27000 (v) 15625 (vi) 13824
(vii) 110592 (viii) 46656 (ix) 175616 (x) 91125

17. Evaluate: $\sqrt[3]{\frac{216}{2197}}$.

18. Evaluate: $\sqrt[3]{\frac{-125}{512}}$.

19. Evaluate: $\sqrt[3]{\frac{-1728}{2744}}$.

20. Evaluate: $\sqrt[3]{64 \times 729}$

ASSIGNMENT QUESTIONS
CLASS VIII: CHAPTER - 7
CUBES AND CUBE ROOTS

1. Find the cube root of (a)512.(b) 27 x 64

2. Is 243 a perfect cube? If not find the smallest number by which 243 must be multiplied to get a perfect cube

3. Is 250 a perfect cube? If not, then by which smallest natural number should 250 be divided so that the quotient is a perfect cube?

4. Find the cube root of $\frac{125}{216}$ and $\frac{-512}{1000}$.

5. Find the cube root of 0.027.

6. What is the cube root of 0.001728?

7. Find the value of $\frac{\sqrt[3]{729}-\sqrt[3]{27}}{\sqrt[3]{512}+\sqrt[3]{343}}$.

8. The volume of a cubical box is 19.683 cu. cm. Find the length of each side of the box.

9. Find the smallest number by which the number 108 must be multiplied to obtain a perfect cube

10. Find the smallest number by which the number 88 must be divided to obtain a perfect cube

11. The volume of a cube is 64 cm^3. Find the side of the cube

12. If volume of a cube is 216 cm^3. What is the length of side of cube.

13. Three cubes of sides 3cm, 4cm and 5 cm respectively are melted to form a new cube. What is the side of new cube?

14. Simplify: $15^3 - 14^3$

15. Simplify: $\sqrt[3]{(1.1)^3} \times \sqrt[3]{1.331}$

16. Find the smallest number by which (2 × 2 × 3 × 3 × 3) is to be multiplied so that resultant number is a perfect cube.

17. Three solid wooden cubes of different colours with sides, 30 cm are placed side by side. How much cubic cm of wood is required to make it?

18. A cubical box has a volume of 512000 cubic cm. What is the length of the side of box?

19. Which least number should be multiplied by 2 × 2 × 7 × 7 × 5 × 7 × 5 × 5 to get a perfect cube?

20. By which least number 250 × 512 should be divided to make it a perfect cube.