પુના International School
Shree Swaminarayan Gurukul, Zundal

ASSIGNMENT SA 1

Class –8 **CH -1,2,3,5,6 and 7** **Sub: MATHS**

PART - A

(i) Multiple Choice Questions: **[1 MARKS QUESTION]**

1. Which of the following is the product of 7/8 and -4/21?

a. - 1/6 b. 1/ 12 c. -16/63 d. -147/16

2. What should be subtracted from -5/4 to get -1?

a. -1/4 b. ¼ c. 1 d. -3/4

3. Which of the following is the Multiplicative identity for rational numbers?

a. 1 b. -1 c. 0 d. None of these

4. Which of the following is the reciprocal of a?

a. a b. a **c. 1/a** d. -1/a

5. Which of the following is the reciprocal of the reciprocal of a rational number?

a. 1 b. -1 c. 0 **d. the number itself**

6. If the sum of two consecutive numbers is 71 and one number is x, then the other number is-

a. x + (x+1) = 71 b. x + (x+2) = 71 c. x + x = 71 d. none of these

7. Two year ago my age was x years, then what was my age 5 years ago?

a. X + 7. b. X - 2 – 5 c. X – 5 d. x – 3

8. How old will I be after 10 years, if my age before 10 years was 'x' years?

a. X + 20 b. X – 20 c. X + 10 d. X-10

9. If 7x+15 = 50, then which of the following is the root of the equation?

a. -5 b. 65/7 **c. 5** d. 1/5

10. If 2x/5 = 4, the value of x is-

a.10 b.-10 c. -8/5. d. 8/5

11. A simple closed curve made up of only _____ is called a polygon.

(a) curves **(b) line segments** (c) lines (d) closed curves

12. A polygon with minimum number of sides is

(a) Pentagon (b) Square **(c) triangle** (d) angle

13. Polygons that have no portions of their diagonals in their exteriors are called

(a) Squares (b) triangles **(c) convex** (d) concave

14. Polygons that have any portions of their diagonals in their exteriors are called

(a) Squares (b) triangles (c) convex **(d) concave**

15. All the sides of a regular polygon are_____.

(a) Parallel **(b) equal in length** (c) not parallel (d) not equal

16. All the angles of a regular polygon are o f _____.

(a) 90^{o} (b) 60^{o} **(c) equal measure** (d) equal length

17. The range of the data: 6,14,20,16,6,5,4,18,25,15 and 5 is

(a) 4 (b) 21 (c) 25 (d) 20

18. The class mark of the class 20-30 is

(a) 20 (b) 30 **(c) 25** (d) 10

19. The difference between the highest and the lowest value of the observations in a data is called:

(a) Mean (b) Mode **(c) Range** (d) Median

20. in the interval 35-45, 45 is called

(a) Upper limit **(b) Lower limit** (c) Range (d) None

21. How many natural numbers lie between 25^2 and 26^2?

(a) 49 (b) **50** (c) 51 (d) 52

22. Square of an even number is always

(a) even (b) odd (c) even or odd (d) none of these

23. 1+ 3 + 5 + 7 + ...up to n terms is equal to

(a) $n^2 - 1$ (b) $(n + 1)^2$ **(c) $n^2 + 1$** (d) n^2

24. The smallest number by which 75 should be divided to make it a perfect square is

(a). 1 (b) 2 **(c) 3** (d) 4

25. The smallest number that should be subtracted from 300 to make it a perfect square is

(a). 11 (b) 12 (c) 13 (d) 14

26. If one number of the Pythagorean triplet is 6, then the triplet is

(a) (4, 5, 6) (b) (5, 6, 7) (c) (6, 7, 8) **(d) (6, 8, 10)**

27. Which of the following is correct?

(a) Cube of a negative number is always positive. **(b) Cube of a negative number is always negative.**

(c) Cube of a negative number may be positive or negative. (d) All of the above

28. If the digit in one's place of a number is 2, then the last digit of its cube will be:

(a) 2 (b) 4 (c) 6 **(d) 8**

29. If the digit in one's place of a number is 3, then the last digit of its cube will be:

(a) 3 (b) 6 **(c) 7** (d) 9

30. Which of the following is a perfect cube?

(a) 10000 (b) 243 **(c) 343** (d) 270000

(ii) Fill the blank: **[1 MARKS QUESTION]**

1. The product of two positive rational number is always positive

2. The quotient of two positive rational number is always **positive**

3. The quotient of two negative rational number is always **positive**

4. The quotient of two negative rational number is always **positive**

5.If c x + d = 0 then the value of x is **-d/c**

6. Is x+9 =d a linear equation? **Yes**

7. Is 5x-3y =5 is a linear equation in one variable? **No**

8. The value of the variable which satisfied the equation is called the **solution of equation.**

9. Name the polygon having minimum number of sides **Triangle.**

10. The sun of adjacent angle is a parallelogram is **180**

11. The quadrilaterals that have four sides of equal length are **rhombus, square**

12. In convex polygon each interior angle is less than **180^0**

13. The class marks of the interval 40 -50 is **45.**

14 The lower limit of the class interval 0-5 is **0,5**

15. In the pie chart the total angle of the centre of a circle is **360**

16. **Double bar** graph is useful for comparison of the data.

17. Without adding the sum of 1+3+5+7+9+11 = **36**

18. Is (3,46) is a Pythagorean triplet? **No**

19. The cubes of all even numbers between 1 and 5 are **8 and 64**

20. The numbers whose cube and cube root both are equal is /are **-1,1.**

(iii) Tell whether the statement is true or false: [1 MARKS QUESTION]

1. A polygon having 10 sides is known as nonagon. **False**
2. A linear equation in one variable has two solutions. **False**
3. Integers cannot be represented on the number line. **False**
4. The negative of 0 does not exist. **True**
5. Two different equation can never have the same answer**. False**
6. In square diagonals are equal. **True**
7. Kite is a parallelogram in which each pair of opposite sides is parallel**. False**
8. The product of two negative rational numbers is positive. **True**
9. The product of two numbers is 1, and then they are not multiplicative inverse of each other. **False**
10. The number 4/7 and 12/21 are equal. **True**
11. -12/5 is the additive inverse of 5/12. **True**
12. The highest power of the variable in a linear equation is 1. **True**
13. The solution of a linear equation is always an integer. **False**
14. A triangle is not a polygon. **False**
15. A polygon has five sides. **False**
16. Every polygon is a quadrilateral. **False**
17. A quadrilateral region is convex. **False**
18. The sum of the angles of a quadrilateral is 180. **False**
19. Every ‖gram is a trapezium. **True**
20. The probability of getting a number more than 7 in the throw of a die is 0. **True**
21. 512 is cube of even number. **True**
22. 1331 is not cube of odd number. **True**
23. The cube of 3 ends in 7. **True**
24. If the number ends in one zero then its cube in three zeroes. **True**
25. The square of a prime number is prime **False**

(iv) Solve: Each carry one mark: [1 MARKS QUESTION]

1. Find the multiplicative inverse of the following.

(a) 2/8 (b) -13 (c) -6/-5 (d) -13/19

2. Write the additive inverse of each of the following:

(a) 2/8 (b) -5/9 (c) 2/-9 (d) 19/-6

3. Verify that $-(-x) = x$ for.

(a) 11/15 (b) -13/17

4. Solve:

(a) 6=z+2 (b) 6x=12 (c) 7x-9=16 (d) 14y-8=13 (e) 17+6p=9

5. How many diagonals does each of the following have?

(a) A convex quadrilateral
(b)A regular hexagon
(c)A triangle

6. What is a regular polygon? State the name of a regular polygon of:

(a) 3 sides
(b) 4 sides
(c) 6 sides

7. Find the range of the data: 6,14,20,16,6,5,4,18,25,15 and 5.

8. The smallest natural number is.

Ans : 1

9. The smallest whole number is

Ans : 0

10. The smallest natural number is.

Ans : 1

11. The smallest whole number is

Ans : 0

12. The smallest odd prime number is

Ans : 3

13. The additive inverse of -7 /19 is

Ans : 7 / 19

14.The Reciprocal of 2/3 is

Ans : 3/2

15. Which number has no reciprocal?
Ans : 0
16. The Reciprocal of -5 is
Ans : -1/5
17. Reciprocal of 1/x, where x= 0 is
Ans : x
18. The product of two rational number is always a
Ans : Rational number
19. The numbers _____ and _____ are their own reciprocals.
Ans : 1 and -1
20. The reciprocal of positive rational number is?
Ans : Positive
21. The additive identity for Rational number is?
Ans : 0
22.The multiplicative identity for Rational number is?
Ans; 1
23.The multiplicative inverse of the Rational number a / b is c / d if a / b X c / d is?
Ans: 1
24. Solve for x: x - 2 = 7 is
Ans: 9
25. Solve for x: x + 3 = 10 is
Ans : 7
26. Solve for p: 17 + 6 p = 9 is
Ans: -4/3
27. Solve for x: 3x = 2x + 18 is
Ans: 18
28. Solve for x: x/3 + 1 = 7/15 is
Ans; -8/5
29. The angle measurements of a quadrilateral are 35 degree, 49degree, 67 degree .The measure of fourth angle is_____ degree
Ans;209^0
30. For which of the following figures, diagonals are equal
Ans: Rectangle

PART - B

Solve: Each carry two marks

1. Represent 7/4 on the number line.

2. Write five rational numbers which are smaller than 2.

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

4. Solve: 14y-8=13

5. How many sides does a regular polygon have if the measure of an exterior angle is 24°?

6. Two adjacent angles of a parallelogram have equal measure. Find the measure of each of the angles of the parallelogram.

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

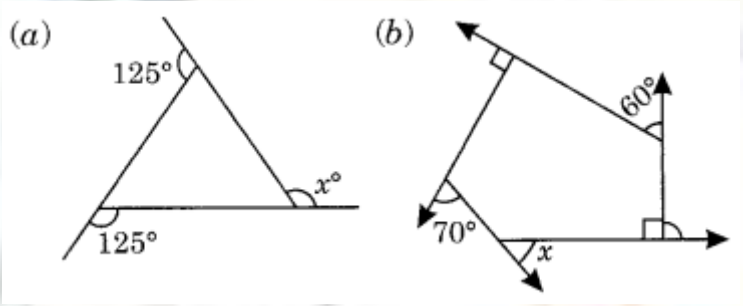
8. Solve and check result: 3 x = 2 x + 18

9. Represent -5/4 on the number line.

10. Solve and check result: 5t – 3 = 3t − 5

11. **Find the angle measures in the following figures:**

12.



A group of 360 people were asked to vote for their favourite season from the three seasons rainy, winter and summer.

(i) Which season got the most votes?

(ii) Find the central angle of each sector.

Season	Number of votes
Summer	90
Rainy	120
Winter	150

13. When a die is thrown, list the outcomes of an event of getting.

(a) A prime number, (b) Not a prime number

(c) A number greater than 5, (d) A number not greater than 5.

14. Find the square of the following numbers

(a) 32 (b) 15 (c) 46

15. Write a Pythagorean triplet whose one member is

(a) 6 (b) 14 (c) 16

16. Find the square roots of the following numbers by the Prime Factorisation Method.

(a) 729 (b) 400 (c) 1764

17. Which of the following numbers are not perfect cubes:
(a) 216 (b) 128 (c) 1000

18. Find the smallest number by which each of the following numbers must be multiplied to obtain a perfect cube:
(a) 243 (b) 256 (c) 72

19. Find the smallest number by which each of the following numbers must be divided to obtain a perfect cube:
(a) 81 (b) 128 (c) 135

Solve: Each carry three marks

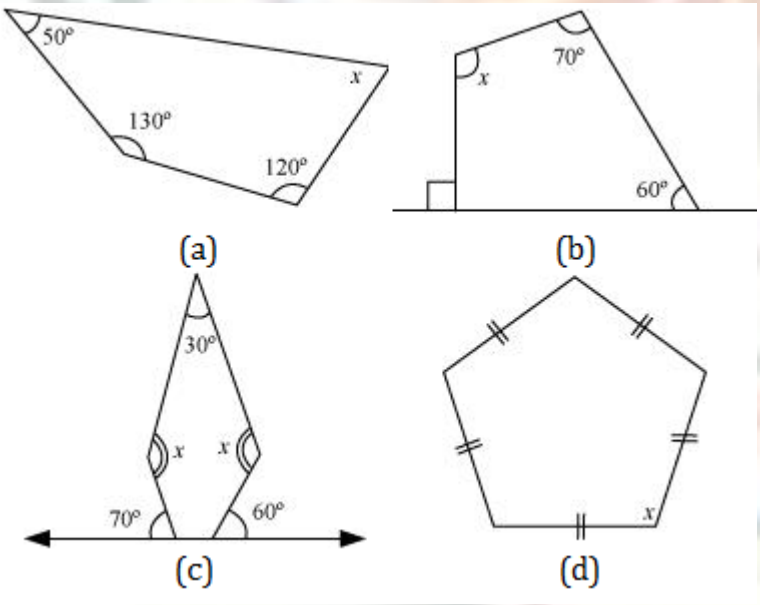
1. Represent -2/11,-5/11 and -9/11 on the number line.

2. Write five rational numbers which are smaller than 2.

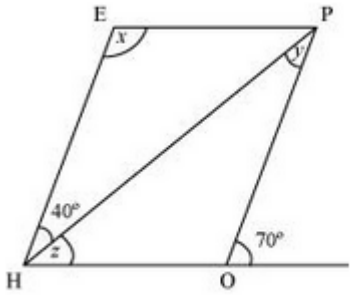
3.Solve and check result: a) $5x+9=5+3$ b) $4z+3=6+2z$

c) $2x-1=14-x$ d) $8x+4=3(x-1)+7$

4. Find the angle measures in the following figures:



5. The adjacent figure HOPE is a parallelogram. Find the angle measures *x*, *y* and *z*. State the properties you use to find them.



6. The shoppers who come to a departmental store are marked as: man (M), woman (W), and 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.

7. The students of Class VIII of a school donated Rs 2401 in all, for Prime Minister's National Relief Fund. Each student donated as many rupees as the number of students in the class. Find the number of students in the class.

8. 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.

9. Find the cube root of each of the following numbers by prime factorization method:

(a) 64 (b) 512 (c) 10648

Solve: Each carry four marks

1. Find the least number which must be added to each of the following numbers so as to get a perfect square. Also find the square root of the perfect square so obtained.

(i) 525 (ii) 1750 (iii) 252

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

3. If you have a spinning wheel with 3 green sectors, 1 blue sector and 1 red sector, what is the probability of getting a green sector? What is the probability of getting a non-blue sector?

4. Solve the linear equation: $\frac{3y+4}{2-6y} = \frac{-2}{5}$

5.Solve the linear equation: $\frac{7y+4}{y+2} = \frac{-4}{3}$

6. Multiply 6/13 by the reciprocal of -7/13 .

PAPER FORMATE

PART – A

MULTIPLE CHOICE QUESTIONS	**[1 X 6 = 6]**
FILL IN THE BLANK	[1 x 4 = 4]
STATE WHETHER THE FOLLOWING STATEMENTS ARE TRUE OR FALSE	[6 X $\frac{1}{2}$ = 3]
WRITE ANSWER IN ONE WORD	[1 X 6 = 6]

PART – B

SOLVE: EACH CARRY TWO MARKS	**[2 X 7 = 14]**
SOLVE: EACH CARRY THREE MARKS	**[3 X 5 = 15]**
SOLVE: EACH CARRY FOUR MARKS	**[4 X 3 = 12]**