CHAITANYA CENTRAL SCHOOL
Yenugonda, Mahabubnagar
Assignment – 2023-24

Class:VIII
Subject: Mathematics

Date:24-04-2023

1.Write multiplication tables of -1, -2, -3, -4, -5, -6, -7, -8, -9, -10

2. Prepare a chart of different types of fractions (By using pulses (or) buttons)

3. Draw a bar graph by collecting the birthday months of your family members.

4.Collect the information of weights of 10 children (girls and boys) of your class. Organise the data, and answer the following questions using this data.

(i) Who is the heaviest of all?

(ii) What is the most common weight?

(iii) What is the difference between your weight and that of your best friend?

5. Record the age in years of all your family members. Tabulate the data and find the mode and mean.

6. Think of some situations atleast 3 examples of each, that are certain to happen, some that are impossible and some that may or may not happen.

7. Explain the concept of an equation with the help of 10 examples. (examples must be different from textbook)

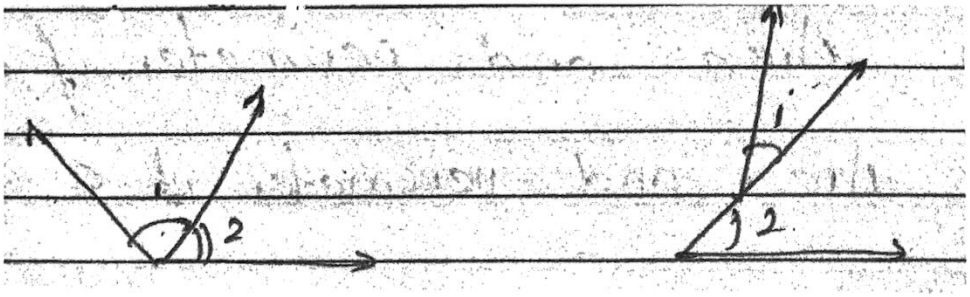
8. Solve 10 statement problems related to topic "Simple equations."

9. List ten figures around you and identify the acute, obtuse, and right angles found in them.

10. What will be the measure of the supplement of each one of the following angles?

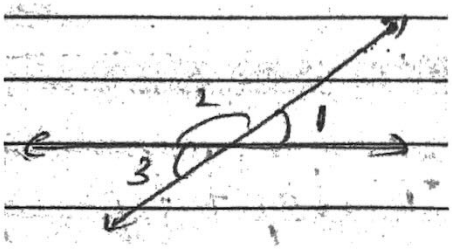
(i) 100^0 (ii) 90^0 (iii) 55^0 (iv) 125^0

11. Are the angles marked 1 and 2 adjacent? If they are not adjacent say why?

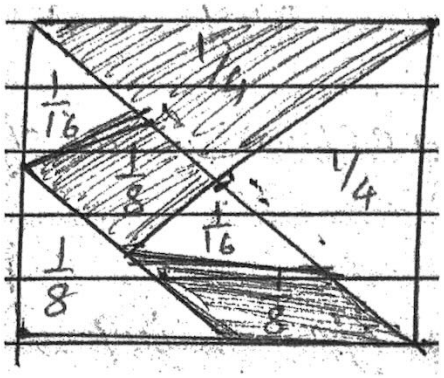


12. Give 3 examples for vertically opposite angles in your surroundings.

13. In the given fig, if $\angle 1 = 30^0$ find $\angle 2$ and $\angle 3$.



14. What percent of these figures are shaded?



15. Explain the concept of Rational Numbers on number line with the help of any 2 examples?

16. Write the formulas to find

(i) The area and circumference of a circle.

(ii) Area and perimeter of a rectangle.

(iii) Area and perimeter of a square

17. What are the terms in the following expressions? Show the terms are formed. Draw a free diagram for each expression.

(i) $8y + 3x^2$ (ii) $7mn - 4$ (iii) $2x^2y$ (iv) $4x^3 - 3xy$

18.Identify the co-efficients of the terms of the following expressions

(i) 4x -3y (ii) a + b + 5 (iii) 2y + 5 (iv) 2xy

19. Write 3 expressions each having 4 terms.

20. Classify the following expressions as a monomial a binomial or a trinomial.

a, a+b, ab + a+b, ab + a+ b-5, xy + 5, $5x^2 - x + 2$, $4pq - 3q + 5p$, 7 $4m - 7n + 10$, $4mn + 7$

21. Group the like terms together from the following

12x, 12, -25x, -25, -25y, 1, x, 12y , y

22. Find 5 examples, where a number is expressed in exponential form. Also identify the base and the exponent in each case.

(Ex: $4 = 2^2$ Base = 2 Power = 2)

23. Express

(i) 729 as a power of 3 (ii) 128 as a power of 2 (iii) 343 as a power of 7.

24. Expand by expressing powers of 10 in the exponential form

(i) 172 (ii) 5,6 4 3 (iii) 56,439 (iv) 1,76,428

25. Fill the following table

	Alphabet letters	line of symmetry	No.of lines of symmetry	order of rotational symmetry
Ex:	Z	NO	O	2
	S			
	H			
	O			
	E			
	N			
	C			

26.Complete the following table.

	Cube	cuboid	cone	cylinder
Faces (F)				
Edges(E)				
Vertices (V)				

27. Can you find a pattern for each of the following? If yes complete them.

(a) 7, 3, -1, -5, __, __, __

(b) -2, -4, -6, -8, ___, ___, ___

(c) 15, 10, 5, 0, ___, ___, ___

(d) -11, -8, -5, -2 , __, __, ___

28. Find (1) 4 x (-8) (2) 8 X (-2) (3) 3 X (-7) using number line.

29. Is a ÷ (-1) = -a? For any integer a, take different values of and check.

30. Find the mean of your sleeping hours during one week.

31. Find (1) 5.2 ÷ 10 (2) 6.7 ÷ 100 (3) 37.5 ÷ 100 (4) 217.4 ÷ 1000 (5) 176.3 ÷ 1000

32. The marks obtained by 10 students in a test are as follows 168, 173, 146, 138, 149, 132, 154, 159, 163, 164

(i) What are the highest marks scored?

(ii) What are the lowest marks scored?

(iii) What is the range of the data?

(iv) What is the mean score?

33. Find (1) 20% of 200

(2) 25% of 350

(3) 36% of 1Kg

34. Complete the following table.

	Cost price	selling price	Profit	loss
(1)	Rs.500	`Rs. 1200		-
(2)	Rs. 600		-	Rs.300
(3)		Rs. 592	Rs.68	-

35. Complete the table.

	Principal	Interest	Amount
(1)	Rs.900	Rs.50	-
(2)	Rs.1000		Rs.1259

36. Compute their sums and product respectively.

	Rational Numbers	Sum	Product
(1)	$\frac{1}{2}, \frac{3}{4}$	____	____
(2)	$\frac{1}{2}, \frac{3}{4}, \frac{5}{16}$	____	____
(3)	$\frac{-7}{3}$, $4\frac{1}{4}, 2\frac{2}{4}$	____	____

37. Find the HCF of (1) 96, 108 and 132. (2) 72, 108, and 126

38. Find the LCM of the numbers 20, 30 and 40 using

(1) Prime factorization (2) division method

39. Draw a quadrilateral ABCD and name the following.

(i) 4 sides (ii) 4 angles (iii) 4 pairs of adjacent sides

(iv) 4 pairs of adjacent angles (v) 2 pairs of opposite angles

40. Name the polygons according to the no. of sides

No. of sides	Name of the polygon
3	
4	
5	
6	
7	
8	
9	
10	

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