

HOLIDAY HOMEWORK – 2019 – 2020**Class: VIII****Subject: MATHEMATICS**

<u>S. No</u>	<u>Topic</u>	<u>Activity / Project</u>	<u>Time period</u>	<u>Skill enhanced / learning outcomes</u>	<u>Annexure No</u>
1	Rational Numbers	Problem solving	8 hrs	Knowledge, understanding	A
2	Linear Equations in One Variable	Problem solving	8 hrs	Knowledge, understanding	B
3	Understanding Quadrilaterals	Problem solving	8 hrs	Knowledge, understanding	C
4	Algebra / Geometry	Chart making	8 hrs	Understanding, creative expression, presentation	D
5	Project	Crossword puzzle / Model making	8 hrs	Understanding, creative expression, presentation	E

Annexure:

- A. Rational Numbers - Problem solving - 12 Qns
B. Linear Equations in One Variable - Problem solving - 22 Qns
C. Understanding Quadrilaterals - Problem solving - 10 Qns
D. Chart making
E. Project

Teacher's Name: Mr. D Maria Rajan**Signature****Recommended By****Approved By****Vice Principal****Principal**

1. Write three rational numbers occurring between $\frac{1}{3}$ and $\frac{4}{5}$.
2. Multiply the negative of $\frac{2}{3}$ by the inverse of $\frac{9}{7}$.
3. What should be added to $-\frac{16}{3}$ to make it $\frac{1}{9}$?
4. What should be subtracted from $\frac{5}{8}$ to make it -1 ?
5. Write different properties of a rational number.
6. Represent $\frac{3}{4}$ and $\frac{8}{9}$ on a number line.
7. Find the greater of the two $-\frac{12}{5}$ and $\frac{4}{9}$
8. Multiply the negative of $\frac{29}{2}$ by its inverse.
9. Write a rational number equivalent to $\frac{9}{10}$ having 90 as numerator.
10. Write a rational number equivalent to $\frac{18}{29}$ having 87 as denominator.
11. Write $\frac{2}{3}$, $-\frac{4}{9}$, $-\frac{8}{11}$ in ascending order.
12. Write $\frac{2}{3}$, $-\frac{4}{9}$, $-\frac{8}{11}$ in descending order.

- 1) Find the solution of $3x-4 = 12$
- 2) Solve: $5x-9 = 8$
- 3) What should be subtracted from thrice the rational number $-\frac{8}{3}$ to get $\frac{5}{2}$?
- 4) The sum of three consecutive multiples of 7 is 63. Find these multiples.
- 5) Solve $\frac{3x}{4} - \frac{7}{4} = 5x + 12$
- 6) Perimeter of a rectangle is 13cm. If its width is $\frac{11}{4}$ cm, find its length.
- 7) The present of Sita's father is three times the present age of Sita. After six years sum of their ages will be 69 years. Find their present ages.
- 8) The digits of a two-digit number differ by 3. If digits are interchanged and the resulting number is added to the original number, we get 121. Find the original number.
- 9) $\frac{(x-2)}{(x+1)} = \frac{1}{2}$. Find x

- 10) Sanjay will be 3 times as old as he was 4 years ago after 18 years. Find his present age.
- 11) If the sum of two numbers is 30 and their ratio is $\frac{2}{3}$ then find the numbers.
- 12) The numerator of a fraction is 2 less than the denominator. If one is added to its denominator, it becomes $\frac{1}{2}$ find the fraction.
- 13) Solve $\frac{x}{3} + \frac{1}{5} = \frac{x}{2} - \frac{1}{4}$
- 14) Show that $x = 4$ is a solution of the equation $x + 7 - \frac{8x}{3} = \frac{17}{6} - \frac{5x}{8}$
- 15) Find x for the equation: $(2 + x)(7 - x)/(5 - x)(4 + x) = 1$
- 16) A number is such that it is as much greater than 45 as it is less than 75. Find the number.
- 17) Divide 40 into two parts such that $\frac{1}{4}$ th of one part is $\frac{3}{8}$ th of the other.
- 18) $x + \frac{3x}{2} = 35$. Find x .
- 19) A is twice old as B. Five years ago A was 3 times as old as B. Find their present ages.
- 20) Solve : $(x + 3)/6 + 1 = (6x - 1)/3$
- 21) The digits of a 2-digit number differ by 5. If the digits are interchanged and the resulting number is added to the original number, we get 99. Find the original number.
- 22) Solve : $5x - 3 = 3x + 7$

UNDERSTANDING QUADRILATERALS

ANNEXURE – C

1. In a quadrilateral ABCD, the angles A, B, C and D are in the ratio 1: 2: 3: 4. Find the measure of each angle of the quadrilateral.
2. The interior angle of a regular is 108° . Find the number of sides of the polygon.
3. The exterior angle of a regular polygon is one-fifth of its interior angle. How many sides have the polygon?
4. The measures of two adjacent angles of a parallelogram are in the ratio 4: 5. Find the measure of each of the angles of the parallelogram.
5. If an exterior angle of a regular polygon is 45° , then find the number of its sides.
6. If an interior angle of a regular polygon is 162° , then find the number of its sides.

7. Find the measure of an interior angle of a regular polygon having 15 sides.
8. An angle of a parallelogram measures 70° . Find the measure of the remaining three angles.
9. One angle of a quadrilateral is 111° and the remaining three angles are equal. Find three angles.
10. What is the ratio of the interior angles of a pentagon and a decagon?

CHART MAKING (any **one** of the following)

ANNEXURE – D

- 1) Make a chart of all divisibility tests.
- 2) Make a chart showing identities of Algebraic Expressions.
- 3) Make a chart showing laws of exponents.
- 4) Make a chart defining fraction, equivalent fraction, proper and improper fraction.
- 5) Make a chart showing kinds of triangles according to sides and angles.
- 6) Make a chart showing the types of quadrilaterals with figures.
- 7) Make a chart showing various kinds of angles with figures and definitions.
- 8) Make some symmetrical paper- cut design and paste them and draw the line of symmetry.
- 9) Make a chart of any one mathematician and with their contribution.
- 10) Make a chart showing the Values of Mathematics in life.

Frame a crossword puzzle based on geometrical terms.

OR

MAKE A MODEL ON ANY ONE OF THE FOLLOWING:

- (i) Kinds of Polygons.
- (ii) Kinds of Triangles (on basis of sides + angles).
- (iii) Kinds of Quadrilateral shapes.
- (iv) Parts of a Circle.

