



FEDERAL DIRECTORATE OF EDUCATION

Summer Vacation Task

Mathematics-----Class-VI

**SESSION
2023-24**



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SUMMER VACATION HOMEWORK

CLASS: 6th

NOTE: Summer vacation homework must be completed in full. Attempt the questions on loose sheets. The file containing all loose sheets must be submitted on the first day after submission.

Subject: Mathematics

Vacation Task

S. No.	Subject Learning objective	Task/Problems/Test items
<u>1</u>	Identify the factors of numbers.	<u>Find all the possible factor of</u> a) 38 b) 60 c) 225 d) 180
<u>2</u>	Students will find out the number of multiple.	Find the first nine multiples of a) 13 b) 19 c) 28 d) 29 e) 33
<u>3</u>	Students will be able to find the number of squares.	Find squares of a) 0.6 b) 27 c) $\frac{3}{8}$ d) $\frac{5}{9}$ e) The sum of squares of two positive numbers is 794. If one number is 13, find the other number.
<u>4</u>	Find prime factors of the given numbers and express the factors in index notation.	Find prime factors of the following numbers. Write answer in index notation. a) 216 b) 60 c) 420 d) 343 e) 91

5	Explain some divisibility tests.	<p>State which of the following are divisible by 2,3,4,5,6,8,9,10,11</p> <p>a) 6123 b) 968 c) 740 d) 3506 e) 500 f) 246 g) 36728 h) 4563.</p>
6	Concept of the factor tree.	<p>Draw a factor tree of</p> <p>a) 36 b) 60 c) 66 d) 150</p>
7	Students will be able to recognise and identify the integers.	<p>Arrange the integers in ascending and descending order</p> <p>a) -400,0,6,-3,-750,-248,628,-8,-99</p> <p>Evaluate:</p> <p>a) $13 + (-6) + (-11)$ b) $7 + (-7)$ c) $0 - (-15)$ d) $24 \div (-6)$ e) $(-13) \times (4)$</p>
8	Explain the mathematical operation applying the BODMAS rule.	<p>Simplify using BODMAS rule</p> <p>a) $5 \times (10 - 8) + 12$ b) $7 + (8 - 3 \times 2)$ c) $5 \times 12 \div 10 - (6 \times 4) \div 12$ d) $\frac{3}{5} + \left(\frac{1}{7} \times \frac{2}{3}\right) \div \frac{10}{21}$</p>
9	Students will be able to construct angles using a compass	<p>Construct angles with following measures using compass</p> <p>a) 30° b) 45° c) 60° d) 75° e) 90° f) 105° g) 120° h) 135°</p>

10	Calculate the perimeter and area of squares and rectangles.	a) If the perimeter of a square is 20m. Then find the area of the square. b) Find the perimeter of a rectangle of length 6cm and breadth 8 cm.
11	Students can differentiate between HCF and LCM.	a) The product of two numbers is 436. Find their LCM if HCF is 6. b) Find LCM and HCF of any(method) (i) 120,168 (ii) 162,440. c) Two wires are 12m and 16m long. The wires are to be cut into pieces of equal length. Find the maximum length of each piece.

Vacation Project

SLO	Project detail	Project deliverable Detail
Recognise data handling using horizontal and vertical bar graphs.	Students of class 6 will collect the ungrouped data of students whose birthdays fall from January to July. a) Construct a frequency table. b) Draw a vertical bar and horizontal bar graph.	Students will make a frequency distribution table on loose sheets. Draw vertical and horizontal bar graphs on graph paper.

<p>Recognise the area and perimeter of the cube, cuboid, cylinder, cone, triangle, square and rectangle.</p>	<p>Students will collect the names of the objects in their house with shapes like cubes, cuboids, cylinders, cones, triangles, squares and rectangles.</p>	<p>At least draw ten shapes that resemble cubes, cuboids, cylinders, cones, triangle, square and rectangle on loose sheets along with the name of the object. Also find the area and perimeter of the shapes by measuring the length using measurement tape.</p>
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