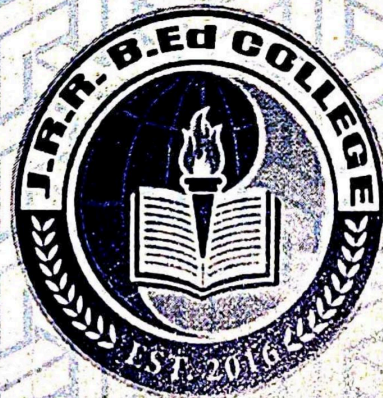


J.R.R. B.Ed COLLEGE

CUMBUM, PRAKASAM Dist. A.P.



SEMISTER - III

SCHOOL INTERNSHIP RECORD

(Teaching practice of 20 lessons for 6th & 7th classes)
in each pedagogy subject

SUBJECT OF PEDAGOGY MATHEMATICS

Name of the Teacher Trainee: ROHITA SAHU

Register No. : Y23ED156001

B.Ed., 2022 - 2024

Name of the College

J.R.R. B.Ed. COLLEGE

B.Ed., 20²² - 20²⁴

Certificate

This is to certify that Mr./Mrs./Miss ROHITA SAHU

bearing the Register Number Y23ED156001

has successfully completed his/her Activity Record work for
School Internship Record Subject of Pedagogy

as a part of B.Ed., (Regular) course for the semester (Mathematics)
III

Signature of the Lecturer

Principal

Date : _____

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Lesson Plan - 01

Preliminary Information

Name of the student-teacher: Rohita Sahu

Regd. No. ÷ Y23ED156001

Subject ÷ Mathematics

Unit ÷ Playing with numbers.

Topic ÷ Introduction

Date ÷

Class ÷ VI

Name of the school ÷

Time ÷ 40 minute.

Playing with Numbers

- 1) Name of the unit ÷ 3. Playing with numbers
- 2) Class ÷ 6
- 3) Number of periods ÷ 26 (for teaching 17 + for practice 9)

Teaching objectives +

- 1) Problem solving
Students are able to
 - (i) Solve problem by using divisibility rules.
 - (ii) Solve problem on finding HCF and LCM in prime Factorisation method and division method.

Reasoning proof +
Students are able to

- (i) Explain the logic behind divisibility rules.
- (ii) Test the procedure to find LCM and HCF of numbers more than two.

Communication ÷
Students are able to

- (i) associate order in multiplication and division table.
- (ii) Express the given number as a product of two prime numbers.
- 4) Connections +
Students are able to

- (i) associate order in multiplication and division tables.
- (ii) associate the application of LCM and HCF in daily life situations
- (iii) associate the common factors of different numbers.

Teaching Material -
 → Chart showing divisibility rules.
 → Chart containing definitions.

Teaching Item	Teaching Strategy	TLM	Evaluation.
Introduction to application of logic.	<p>Good morning Children,</p> <p>Hevini wants to distribute of chocolates to her classmate on her birthday. Her father brought a box of 125 chocolates. There are 25 student in her class. She decided to distribute in such a way that each one would get equal number of chocolates. What she do?</p> <p>She thought of giving 2 chocolates each, but she found that some were remaining.</p> <p>again she thought giving 3 each but she found that some will remaining. and the process going on.</p>	Chocolates	How she wants to distribute the chocolate?

Teaching Item

Teaching Strategy

Finally, she conclude that she will give 5 chocolates each. Then she come to know about divisibility.

125 ÷ 25 = 5

Now we will discuss divisible rules?

Q. Is 29 is divisible by 4?

Let us check
$$\begin{array}{r} 4 \overline{) 29} \\ \underline{4} \\ 29 \\ \underline{28} \\ 1 \end{array}$$

Here it leaves remainder 1 and Quotient 7.

Q. Is 28 is divisible by 4?

Let us choose
$$\begin{array}{r} 4 \overline{) 28} \\ \underline{4} \\ 28 \\ \underline{28} \\ 0 \end{array}$$

Yes, 28 is divisible by 4. and it is a composite number.

(*) Divisibility Rule :-

The process of checking whether number is divisible by a given number or not without actual division is called divisibility rule for that number.

TLM

Chart

Define divisibility rule of 27 is divided by 9.

Evaluation

Teaching Item.

Teaching Strategy

We see, the above table all the rounded numbers have 0, 2, 4, 6, 8 in the ones place. So, all the rounded numbers are divisible by 2. Let's check some numbers.

for example 48, 36

$$\begin{array}{r} 2 \overline{) 48} \\ \underline{40} \\ 8 \\ \underline{8} \\ 0 \end{array}$$

$$\begin{array}{r} 2 \overline{) 36} \\ \underline{20} \\ 16 \\ \underline{16} \\ 0 \end{array}$$

$$\begin{array}{r} \overline{) 16} \\ \underline{16} \\ 0 \end{array}$$

So, the nos which are divisible by '2', the no. have only digits, 0, 2, 4, 6, 8 in the ones place.

TLM

Evaluation.

assignment -
 done 953,
 9534, 900,
 452 divisible
 by 2.
 extra check
 by actual
 divisible.

TLM

Teaching Strategy

Teaching Item.

Lesson plan - 02 +

Preliminary Information :-

Name of the student teacher :- Rohita Sahu

Regd. No. :- Y23ED156001

Subject :- Mathematics

Unit :- Playing with numbers

Topic :- Divisibility by 3

Date :-

Class + :- VI

Time :- 40 minutes

Name of the school :-

Signature: [Faint signature] Date: [Faint date]

Teaching Item

Teaching Strategy

TLM

Evaluation

Q. Multiple of 2?

Ans) 2, 4, 6, 8, 10, 12, ...

Q. Is 24 divisible by 2?

Ans) Yes, 24 is divisible by 2 with zero as remainder.

Q. Multiple of 3?

Ans) 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 48, ...

Notice the numbers like

21, 27, 54,

So, all the above numbers are divisible by 3.

$$\begin{array}{r} 3 \overline{) 21} \\ \underline{21} \\ 0 \end{array}$$

$$\begin{array}{r} 3 \overline{) 27} \\ \underline{27} \\ 0 \end{array}$$

$$\begin{array}{r} 3 \overline{) 54} \\ \underline{54} \\ 0 \end{array}$$

Notice any pattern in the ones place.

Of these three numbers like 1, 3, 7, 6, 9, 4 one is divisible by 3.

Chart showing

Divisibility Rule.

Teaching
Item

Teaching strategy

Let us check
27, 37 both not having 7 in
one's place but

$$\begin{array}{r} 3 \overline{) 27} \quad (9) \quad 3 \overline{) 37} \quad (12) \\ \underline{27} \\ 0 \\ \underline{07} \\ 6 \end{array}$$

27 is divisible by 3
but 37 is not divisible by 3
Let us now add the digits

$$\begin{array}{l} 21, 36, 54, 63, 72, 117, \\ 2+1=3, \quad 3+6=9, \quad 5+4=9 \\ 6+3=9, \quad 7+2=9 \end{array}$$

all these sums are divisible by 3.
Thus we can say that sum of the
digits in a multiple of 3 then the
number is divisible by 3.

TLM

Chart
showing
divisibility
rules

Evaluation

Define the
divisibility
rules of
3, 9.

Teaching Item

Teaching Strategy

Check: 369 is divisible by 3?

First add these numbers

$$3 + 6 + 9 = 18$$

18 is divisible by 3

So, 369 is divisible by 3.

Circle the multiples of 3:

1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24
25	26	27	28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45	46	47	48
49	50	51	52	53	54	55	56	57	58	59	60

all the multiples of 3 is divisible by

3 because all no. like

3, 6, 9, 12, 15, 18, 21, 24, ...

The sum of the numbers are divisible by 3.

So all the multiple of 3 are divisible by 3.

TLM

chart

Evaluation

Is 369 is divisible by 3?

assignment + Check the following no. are divisible by 3.

1) 49586

2) 36129

3) 7819

176

Lesson plan - 03

Preliminary Information

Name of the student teacher - Rohita Sahu

Regd. No - Y23ED156001

Subject - Mathematics
Unit - Playing with numbers
Topic - Divisibility of 6 and 9

Date

Time - 40 minutes

Name of the school

Prepared by	Rohita Sahu
Checked by	[Signature]
Approved by	[Signature]
Subject	Maths
Topic	Divisibility of 6 and 9
Date	
Time	40 minutes
Name of the school	

Teaching stem

Teaching Strategy

Q. 774 is divisible by 9?
 Ans) $7+7+4 = 18 = 1+8 = 9$
 So, 9 is divisible by 3.
 So, the number 774 is divisible by 3.
 Q) Multiple of '6' ?
 6, 12, 18, 24, 30, 36, 42, 48, 54, 60, ...
 Do you notice anything special?
 Yes, all numbers which are multiple of 6 are also multiple of 2, 3 also.
 So all the above numbers are divisible by 2 and 3.
 If a number is divisible by both 2 and 3 then it is also divisible by 6.
 Now find the multiple of 6 in the table and circle it.
 It 30 is divisible by 6.
 By the determination of divisibility of 6 both it is divisible by 2 and 3.
 30 is divisible by 2 and 3.

Divisibility by '6'

TLM

Chart

Evaluation

24 is divisible by 2?

24 is divisible by 3.

∴ 24 is divisible by 6.

Teaching Item

Teaching Strategy

$$2 \overline{)30} \begin{matrix} 15 \\ 30 \\ 0 \\ 0 \end{matrix}$$

$$\frac{30}{3} = 10$$

$$\frac{30}{2} = 15$$

$$\frac{30}{5} = 6$$

$$\frac{30}{10} = 3$$

$$\frac{30}{15} = 2$$

$$\frac{30}{20} = 1.5$$

$$\frac{30}{25} = 1.2$$

$$\frac{30}{30} = 1$$

$$\frac{30}{40} = 0.75$$

$$\frac{30}{50} = 0.6$$

$$\frac{30}{60} = 0.5$$

$$\frac{30}{70} \approx 0.43$$

$$\frac{30}{80} = 0.375$$

$$\frac{30}{90} \approx 0.33$$

$$\frac{30}{100} = 0.3$$

$$\frac{30}{110} \approx 0.27$$

$$\frac{30}{120} = 0.25$$

$$\frac{30}{130} \approx 0.23$$

$$\frac{30}{140} \approx 0.21$$

$$\frac{30}{150} = 0.2$$

$$\frac{30}{160} \approx 0.19$$

$$\frac{30}{170} \approx 0.18$$

$$\frac{30}{180} \approx 0.17$$

$$\frac{30}{190} \approx 0.16$$

$$\frac{30}{200} = 0.15$$

$$\frac{30}{210} \approx 0.14$$

$$\frac{30}{220} \approx 0.14$$

$$\frac{30}{230} \approx 0.13$$

$$\frac{30}{240} \approx 0.125$$

$$\frac{30}{250} = 0.12$$

$$\frac{30}{260} \approx 0.115$$

$$\frac{30}{270} \approx 0.11$$

$$\frac{30}{280} \approx 0.11$$

$$\frac{30}{290} \approx 0.10$$

$$\frac{30}{300} = 0.1$$

TLM

Chart

Chart

MIT

Evaluation

p. 2, 3 p.
 all numbers
 or digit number
 even number of
 digits
 odd number of
 digits
 all numbers
 p.
 all numbers
 all numbers

p. 2, 3 p.
 all numbers
 all numbers

MIT

Teaching Item

Teaching Strategy

Q.1) Multiple of the '9'
 (Ans) 9, 18, 27, 36, 45, 54, 63, 72, 81, 90, 99, 108, 117, 126, 135, 144, 153, 162, 171, 180, 189, 198, 207, 216, 225, 234, 243, 252, 261, 270, 279, 288, 297, 306, 315, 324, 333, 342, 351, 360, 369, 378, 387, 396, 405, 414, 423, 432, 441, 450, 459, 468, 477, 486, 495, 504, 513, 522, 531, 540, 549, 558, 567, 576, 585, 594, 603, 612, 621, 630, 639, 648, 657, 666, 675, 684, 693, 702, 711, 720, 729, 738, 747, 756, 765, 774, 783, 792, 801, 810, 819, 828, 837, 846, 855, 864, 873, 882, 891, 900, 909, 918, 927, 936, 945, 954, 963, 972, 981, 990, 999, 1008, 1017, 1026, 1035, 1044, 1053, 1062, 1071, 1080, 1089, 1098, 1107, 1116, 1125, 1134, 1143, 1152, 1161, 1170, 1179, 1188, 1197, 1206, 1215, 1224, 1233, 1242, 1251, 1260, 1269, 1278, 1287, 1296, 1305, 1314, 1323, 1332, 1341, 1350, 1359, 1368, 1377, 1386, 1395, 1404, 1413, 1422, 1431, 1440, 1449, 1458, 1467, 1476, 1485, 1494, 1503, 1512, 1521, 1530, 1539, 1548, 1557, 1566, 1575, 1584, 1593, 1602, 1611, 1620, 1629, 1638, 1647, 1656, 1665, 1674, 1683, 1692, 1701, 1710, 1719, 1728, 1737, 1746, 1755, 1764, 1773, 1782, 1791, 1800, 1809, 1818, 1827, 1836, 1845, 1854, 1863, 1872, 1881, 1890, 1899, 1908, 1917, 1926, 1935, 1944, 1953, 1962, 1971, 1980, 1989, 1998, 2007, 2016, 2025, 2034, 2043, 2052, 2061, 2070, 2079, 2088, 2097, 2106, 2115, 2124, 2133, 2142, 2151, 2160, 2169, 2178, 2187, 2196, 2205, 2214, 2223, 2232, 2241, 2250, 2259, 2268, 2277, 2286, 2295, 2304, 2313, 2322, 2331, 2340, 2349, 2358, 2367, 2376, 2385, 2394, 2403, 2412, 2421, 2430, 2439, 2448, 2457, 2466, 2475, 2484, 2493, 2502, 2511, 2520, 2529, 2538, 2547, 2556, 2565, 2574, 2583, 2592, 2601, 2610, 2619, 2628, 2637, 2646, 2655, 2664, 2673, 2682, 2691, 2700, 2709, 2718, 2727, 2736, 2745, 2754, 2763, 2772, 2781, 2790, 2799, 2808, 2817, 2826, 2835, 2844, 2853, 2862, 2871, 2880, 2889, 2898, 2907, 2916, 2925, 2934, 2943, 2952, 2961, 2970, 2979, 2988, 2997, 3006, 3015, 3024, 3033, 3042, 3051, 3060, 3069, 3078, 3087, 3096, 3105, 3114, 3123, 3132, 3141, 3150, 3159, 3168, 3177, 3186, 3195, 3204, 3213, 3222, 3231, 3240, 3249, 3258, 3267, 3276, 3285, 3294, 3303, 3312, 3321, 3330, 3339, 3348, 3357, 3366, 3375, 3384, 3393, 3402, 3411, 3420, 3429, 3438, 3447, 3456, 3465, 3474, 3483, 3492, 3501, 3510, 3519, 3528, 3537, 3546, 3555, 3564, 3573, 3582, 3591, 3600, 3609, 3618, 3627, 3636, 3645, 3654, 3663, 3672, 3681, 3690, 3699, 3708, 3717, 3726, 3735, 3744, 3753, 3762, 3771, 3780, 3789, 3798, 3807, 3816, 3825, 3834, 3843, 3852, 3861, 3870, 3879, 3888, 3897, 3906, 3915, 3924, 3933, 3942, 3951, 3960, 3969, 3978, 3987, 3996, 4005, 4014, 4023, 4032, 4041, 4050, 4059, 4068, 4077, 4086, 4095, 4104, 4113, 4122, 4131, 4140, 4149, 4158, 4167, 4176, 4185, 4194, 4203, 4212, 4221, 4230, 4239, 4248, 4257, 4266, 4275, 4284, 4293, 4302, 4311, 4320, 4329, 4338, 4347, 4356, 4365, 4374, 4383, 4392, 4401, 4410, 4419, 4428, 4437, 4446, 4455, 4464, 4473, 4482, 4491, 4500, 4509, 4518, 4527, 4536, 4545, 4554, 4563, 4572, 4581, 4590, 4599, 4608, 4617, 4626, 4635, 4644, 4653, 4662, 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10557, 10566, 10575, 10584, 10593, 10602, 10611, 10620, 10629, 10638, 10647, 10656, 10665, 10674, 10683, 10692, 10701, 10710, 10719, 10728, 10737, 10746, 10755, 10764, 10773, 10782, 10791, 10800, 10809, 10818, 10827, 10836, 10845, 10854, 10863, 10872, 10881, 10890, 10899, 10908, 10917, 10926, 10935, 10944, 10953, 10962, 10971, 10980, 10989, 10998, 11007, 11016, 11025, 11034, 11043, 11052, 11061, 11070, 11079, 11088, 11097, 11106, 11115, 11124, 11133, 11142, 11151, 11160, 11169, 11178, 11187, 11196, 11205, 11214, 11223, 11232, 11241, 11250, 11259, 11268, 11277, 11286, 11295, 11304, 11313, 11322, 11331, 11340, 11349, 11358, 11367, 11376, 11385, 11394, 11403, 11412, 11421, 11430, 11439, 11448, 11457, 11466, 11475, 11484, 11493, 11502, 11511, 11520, 11529, 11538, 11547, 11556, 11565, 11574, 11583, 11592, 11601, 11610, 11619, 11628, 11637, 11646, 11655, 11664, 11673, 11682, 11691, 11700, 11709, 11718, 11727, 11736, 11745, 11754, 11763, 11772, 11781, 11790, 11799, 11808, 11817, 11826, 11835, 11844, 11853, 11862, 11871, 11880, 11889, 11898, 11907, 11916, 11925, 11934, 11943, 11952, 11961, 11970, 11979, 11988, 11997, 12006, 12015, 12024, 12033, 12042, 12051, 12060, 12069, 12078, 12087, 12096, 12105, 12114, 12123, 12132, 12141, 12150, 12159, 12168, 12177, 12186, 12195, 12204, 12213, 12222, 12231, 12240, 12249, 12258, 12267, 12276, 12285, 12294, 12303, 12312, 12321, 12330, 12339, 12348, 12357, 12366, 12375, 12384, 12393, 12402, 12411, 12420, 12429, 12438, 12447, 12456, 12465, 12474, 12483, 12492, 12501, 12510, 12519, 12528, 12537, 12546, 12555, 12564, 12573, 12582, 12591, 12600, 12609, 12618, 12627, 12636, 12645, 12654, 12663, 12672, 12681, 12690, 12699, 12708, 12717, 12726, 12735, 12744, 12753, 12762, 12771, 12780, 12789, 12798, 12807, 12816, 12825, 12834, 12843, 12852, 12861, 12870, 12879, 12888, 12897, 12906, 12915, 12924, 12933, 12942, 12951, 12960, 12969, 12978, 12987, 12996, 13005, 13014, 13023, 13032, 13041, 13050, 13059, 13068, 13077, 13086, 13095, 13104, 13113, 13122, 13131, 13140, 13149, 13158, 13167, 13176, 13185, 13194, 13203, 13212, 13221, 13230, 13239, 13248, 13257, 13266, 13275, 13284, 13293, 13302, 13311, 13320, 13329, 13338, 13347, 13356, 13365, 13374, 13383, 13392, 13401, 13410, 13419, 13428, 13437, 13446, 13455, 13464, 13473, 13482, 13491, 13500, 13509, 13518, 13527, 13536, 13545, 13554, 13563, 13572, 13581, 13590, 13599, 13608, 13617, 13626, 13635, 13644, 13653, 13662, 13671, 13680, 13689, 13698, 13707, 13716, 13725, 13734, 13743, 13752, 13761, 13770, 13779, 13788, 13797, 13806, 13815, 13824, 13833, 13842, 13851, 13860, 13869, 13878, 13887, 13896, 13905, 13914, 13923, 13932, 13941, 13950, 13959, 13968, 13977, 13986, 13995, 14004, 14013, 14022, 14031, 14040, 14049, 14058, 14067, 14076, 14085, 14094, 14103, 14112, 14121, 14130, 14139, 14148, 14157, 14166, 14175, 14184, 14193, 14202, 14211, 14220, 14229, 14238, 14247, 14256, 14265, 14274, 14283, 14292, 14301, 14310, 14319, 14328, 14337, 14346, 14355, 14364, 14373, 14382, 14391, 14400, 14409, 14418, 14427, 14436, 14445, 14454, 14463, 14472, 14481, 14490, 14499, 14508, 14517, 14526, 14535, 14544, 14553, 14562, 14571, 14580, 14589, 14598, 14607, 14616, 14625, 14634, 14643, 14652, 14661, 14670, 14679, 14688, 14697, 14706, 14715, 14724, 14733, 14742, 14751, 14760, 14769, 14778, 14787, 14796, 14805, 14814, 14823, 14832, 14841, 14850, 14859, 14868, 14877, 14886, 14895, 14904, 14913, 14922, 14931, 14940, 14949, 14958, 14967, 14976, 14985, 14994, 15003, 15012, 15021, 15030, 15039, 15048, 15057, 15066, 15075, 15084, 15093, 15102, 15111, 15120, 15129, 15138, 15147, 15156, 15165, 15174, 15183, 15192, 15201, 15210, 15219, 15228, 15237, 15246, 15255, 15264, 15273, 15282, 15291, 15300, 15309, 15318, 15327, 15336, 15345, 15354, 15363, 15372, 15381, 15390, 15399, 15408, 15417, 15426, 15435, 15444, 15453, 15462, 15471, 15480, 15489, 15498, 15507, 15516, 15525, 15534, 15543, 15552, 15561, 15570, 15579, 15588, 15597, 15606, 15615, 15624, 15633, 15642, 15651, 15660, 15669, 15678, 15687, 15696, 15705, 15714, 15723, 15732, 15741, 15750, 15759, 15768, 15777, 15786, 15795, 15804, 15813, 15822, 15831, 15840, 15849, 15858, 15867, 15876, 15885, 15894, 15903, 15912, 15921, 15930, 15939, 15948, 15957, 15966, 15975, 15984, 15993, 16002, 16011, 16020, 16029, 16038, 16047, 16056, 16065, 16074, 16083, 16092, 16101, 16110, 16119, 16128, 16137, 16146, 16155, 16164, 16173, 16182, 16191, 16200, 16209, 16218, 16227, 16236, 16245, 16254, 16263, 16272, 16281, 16290, 16299, 16308, 16317, 16326, 16335, 16344, 16353, 16362, 16371, 16380, 16389, 16398, 16407, 16416, 16425, 16434, 16443, 16452, 16461, 16470, 16479, 16488, 16497, 16506, 16515, 16524, 16533, 16542, 16551, 16560, 16569, 16578, 16587, 16596, 16605, 16614, 16623, 16632, 16641, 16650, 16659, 16668, 16677, 16686, 16695, 16704, 16713, 16722, 16731, 16740, 16749, 16758, 16767, 16776, 16785, 16794, 16803, 16812, 16821, 16830, 16839, 16848, 16857, 16866, 16875, 16884, 16893, 16902, 16911, 16920, 16929, 16938, 16947, 16956, 16965, 16974, 16983, 16992, 17001, 17010, 17019, 17028, 17037, 17046, 17055, 17064, 17073, 17082, 17091, 17100, 17109, 17118, 17127, 17136, 17145, 17154, 17163, 17172, 17181, 17190, 17199, 17208, 17217, 17226, 17235, 17244, 17253, 17262, 17271, 17280, 17289, 172

Lesson plan - 04

Preliminary Information +

Name of the student teacher + Roheta Sahu

Regd. No + Y23ED156001

Subject ÷ Mathematics

Unit ÷ Playing with Numbers

Topic + Divisibility by 5 and 10

Date ÷

Class ÷ VI

Time ÷ 40 minutes

Name of the school ÷

अपराजिता
सिन्हा
प्रोफेसर

प्रोफेसर

अपराजिता
सिन्हा

MT

अपराजिता
सिन्हा

Teaching stem

Teaching Strategy

Q. Check the divisibility of 5.
check whether 5785 is divisible by 5.

$$\begin{array}{r}
 5 \overline{) 5785} \\
 \underline{5} \\
 07 \\
 \underline{5} \\
 28 \\
 \underline{25} \\
 35 \\
 \underline{35} \\
 0
 \end{array}$$

So the given number is divisible by 5.

Multiples of 5:

5, 10, 15, 20, 25, ...

Multiples of 10:

10, 20, 30, 40, 50, ...

Circle the multiples of 10.

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18

TLM

chart.

Evaluation

Divisibility rule of 5.

As 53 is divisible by 5?

Teaching Item

Teaching Strategy

19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45
46	47	48	49	50	51	52	53	54

Divisibility by 5 and 10.

Q. Multiplier of 3.

Ans 3, 6, 9, 12, 15, 18, ...

Q. Multiplier of 5.

Ans 5, 10, 15, 20, 25, ...

(*) Circle the multiples of 5 in the following table.

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27
28	29	30	31	32	33	34	35	36
37	38	39	40	41	42	43	44	45

Evaluation

Is 10 in divisible rule of 10?

25, 20, 15 are divisible by 5?

TLM

Chart of divisibility rules.

chart.

TLM

Teaching Item

Teaching Strategy

All the ~~square~~ ^{circle} numbers are divisible by 5.

Q. $125 \div 5 = 25$

$$\begin{array}{r} 5 \overline{) 125} \\ \underline{5} \\ 75 \\ \underline{75} \\ 0 \end{array}$$

Divisibility rule of 5:

All the num with zero and five at unit place is divisible by 5.

Q. 5785 is divisible by 5?

In the unit place num is 5.

So this number is divisible by 5.

Q. 325 is divisible by 10?

Ans) No, because the number at unit place is 5, not 0.

TLM

Evaluation

Assignment:

Q. 5785, 9005, 6021

are divisible by 5?

Q. Write the examples of divisors of 10?

Chart

Teaching Strategy

TLM

Evaluation

Lesson plan - 05

Preliminary Information

Name of the student teacher :- Rohita kahu

Regd. No. :- Y23E0156001

Subject :- Mathematics

Topic :- Playing with Numbers

Date :- Problem 1-4 increase

Class :- VII

Time :- 40 minutes

Name of the school :-

285825

285825

285825

285825

285825

285825

285825

Book :-

285825

285825

285825

285825

285825

Teaching
stem

Teaching Strategy

Divisibility of n
 Sum of the ~~at~~ number is
 $3 + 2 + 7 + 1 + 2 + 9 = 24$
 The number is divisible by 3. So
 this num is divisible by 3.

$$\begin{array}{r} 3 \overline{) 321729} \\ \underline{3} \\ 02 \\ \underline{0} \\ 21 \\ \underline{21} \\ 07 \\ \underline{06} \\ 12 \\ \underline{12} \\ 09 \\ \underline{09} \\ 0 \end{array}$$

Q: 27 Determine which of the following are divisible by 5 and 10.
 (i) 25
 (ii) 250
 (iii) 25 is divisible by 5 because unit place is 5.

Divisible
Problem.

Evaluation

4338 is
divisible by
2, 3, 6.

TLM

Note
Book

at 3938
it is divisible
by 2, 3, 6
4338
it is divisible by
2, 3, 6

TLM

Teaching Item

Teaching Strategy

(ii) 250 is divisible by both 5 and 10. or its unit place number is 0 and

Q. Fill the divisibility rule 3 and 9.

Divisible Problem

Number	Sum of the digits in the no.	Digit	
		3	9
72	$7+2=9$	Yes	Yes
197	$1+9+7=17$	No	No
4689	$4+6+8+9=27$	Yes	Yes

Q. Make 3-digit number using 1, 9, 8 where each digit can be used only check which of them divisible by 9.

Ans) Making of 3-digit no. are

198	918	981	189	819	891
$1+9+8=18$	$9+1+8=18$	$9+8+1=18$	$1+8+9=18$	$8+1+9=18$	$8+9+1=18$

All the above numbers are divisible by 9 because the sum of the digits is divisible by 9.

TLM

Text Book

Make no. by using the digits. then check it is divisible by 3 & 9?

TLM

Evaluation

Lesson plan - 06 :-

Preliminary Information :-

Name of the student teacher :- Rohita Sahu

Regd. No :- Y23 ED156 001

Subject :- Mathematics

Unit :- Playing with numbers

Topic :- Problem 5-9 decrease

Date :-

Class :- VII

Time :- 40 minutes.

Name of the school :- St. Peter's

Address :-
...

Signature :- ...

Teaching Item	Teaching Strategy	TLM	Evaluation
<p>Divisible Problems</p>	<p>Q) Which no. 2, 3, 5, 6, 9 divider 12345 exactly? Ans) The sum of the no. $1+2+3+4+5=15$ 12345 is not divisible by 2 because the unit's place no. is 5. 12345 is divisible by 3 because sum of the digits 15 is divisible by 3.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> $\begin{array}{r} 2 \overline{) 12345} \\ \underline{03} \\ 14 \\ \underline{14} \\ 05 \\ \underline{4} \\ 1 \end{array}$ </div> <div style="text-align: center;"> $\begin{array}{r} 3 \overline{) 12345} \\ \underline{12} \\ 03 \\ \underline{03} \\ 04 \\ \underline{03} \\ 15 \\ \underline{15} \\ 0 \end{array}$ </div> </div> <p>12345 is not divisible by 6 because it is not divisible by 2. 12345 is divisible by 5 because its unit place is 5. 12345 is not divisible by 9 because sum of the digits 15 is not divisible by 9.</p>	<p>Text Book Note Book</p>	<p>check which no. 2, 3, 5, 6, 9 divider 54321 exactly?</p>

Teaching Strategy

Q. Write different 2-digit no. using 3, 4 and 5. Check whether these no. are divisible by 2, 3, 5, 6 and 9?

Ans. Two digit no. using 3, 4, 5 in an follows:-

(i) 34, (ii) 35, (iii) 45 (iv) 54 (v) 53

(vi) 43

(i) 34 It is divisible by 2. (unit digit is 4)
 It is not divisible by 3. (digit sum 3+4 = 7 not divisible by 3)
 It is not divisible by 5. (unit digit is not 0 or 5)
 It is not divisible by 6. (since it is not divisible by 2 and 3)
 It is not divisible by 9. (digit sum 3+4 = 7 is not divisible by 9)

Q. Write the smallest and greatest possible digit in the blank for which the no. formed is divisible by 2's

TLM

Text Book

Note Book

Evaluation

Write the smallest and greatest no. in the blank space.

Teaching Team

6724

Lesson plan - 07 :-

Name of the student teacher :- Rehita Sahu

Regd. No + Y23ED156001

Subject + Mathematics

Unit :- Playing with numbers

Topic :- Finding the factors of a given no

Date :-

Class :- VI

Time :- 40 minute

Name of the school :-

Books :-
Mathematics
HOTS
HOTS

M.T.T. :-
Mathematics

Teaching Item

Identify the factors of given numbers.

Teaching Strategy

We have studied the divisibility rules for 2, 3, 5, 9 and 10. Now learn the concept of factors.

Let us observe the situation:

Devi has 6 coins with her. She wants to arrange it in the following manner. \rightarrow One coin in each column of the



Total no. of coins = $1 \times 6 = 6$ wrong

\rightarrow 2 coin in each column



Total no. of coins = $2 \times 3 = 6$

\rightarrow 3 coin in each column



Total no. of coins = $3 \times 2 = 6$

Evaluation

How many coins

Devi have?

TLM

Black Board
distinction chart.

Two pages of a diary
many purposes

supporting

technology

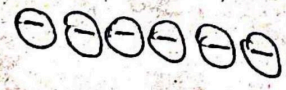
game

name

Teaching Item

Teaching Strategy

→ 6 coin in each row column.



Total no. of coin = $6 \times 1 = 6$

Devi observe that 6 can be written as a product of two numbers.

$6 \times 1 = 6$, $2 \times 3 = 6$, $3 \times 2 = 6$

It can be said that 2 and 3 exactly divider 6.

So '2', '3' are factors of '6' and also

'6' and '1' also factors of '6'

∴ 1, 2, 3 and 6 are the only factors of 6

So the factors of the no. was

- 1) 1 is the factor of every number.
- 2) Every no. is a factor of itself.
- 3) Every factor is less than or equal to the number.
- 4) Factors cannot be greater than the given number.

TLM

Black Board
distinction chart.

Evaluation

Devi have
6 coins.

Lesson plan - 08

Name of the student teacher: Rehita Sahu

Regd. No. Y23ED156001

Subject: Mathematics

Unit/Topic: Playing with numbers

Topic: Prime and composite numbers.

Class: V

Time: 40 minute

Name of the school: ...

Signature: Rehita Sahu
Date: ...

Mathematics

MT

...

...

...

Teaching Item

Teaching Strategy

Q) Number of the factors given number are the countable.

Observe the following table:-

Number
Factors

12: 1, 2, 3, 4, 6, 12

13: 1, 13

20: 1, 2, 4, 5, 10, 20

24: 1, 2, 3, 4, 6, 8, 12, 24

12 is divisible by

1, 2, 3, 4, 6, 12.

So the factors of 12 are 1, 2, 3, 4, 6, 12.

Verifying the division:-

$$12 \div 1 = 12$$

$$12 \div 2 = 6$$

$$12 \div 3 = 4$$

$$12 \div 4 = 3$$

$$12 \div 6 = 2$$

$$12 \div 12 = 1$$

Evaluation

What is the smallest factor of a given number?

What is the greatest factor of given number.

Assignment:-

1) Find the factors of 28 and verify its division.

TLM

Black Board Chart

Lesson plan - 09:

Preliminary Information:

Name of the student: Rohita Sahu

Roll No: Y23 ED156001

Subject: Mathematics

Topic: Playing with Numbers

Unit: Co-prime and Prime numbers

Date: 15/08/2023

Class: V

Time: 40 minutes

Name of the school: [Faint text]

Signature: [Faint signature]

MTT

Date: [Faint date]

Teaching Item

Teaching Strategy

Q) What is Prime number?
Ans: The number having only factors are 1 and only factors are 1 and the number itself are called prime numbers.

Q) What is composite number?
Ans: The number having more than two factors are called composite numbers.

Co-prime or Relative Prime -
Observe the number 3 and 8. The factors of 3 are 1 and 3.
The factors of 8 are 1, 2, 4, 8. The common factor for both 3 and 8 is 1 only.

Playing with numbers -
Then, the numbers which have only 1 as the common factor are called co-primes or relatively prime. Write two pairs of Co-prime, by finding the common factors.

Examples - 01 -
Consider two co-prime number 4 and 5. Are both of them prime numbers?

Evaluation

What is prime number?

What is composite number?

TLM

Black Board

TLM

Evaluation

Teaching Item

Teaching Strategy

TLM

Evaluation

Solution -> No, 4 is not a prime only 5 is a prime
 We can say that only two primes are co-prime that but all the co-primes need not be primes.
 Twin Primes -> Twin Primes are prime numbers that differate from each other by two example (3,5), (5,7), (11,13) (41,43) etc.
 Hence all twin primes relatively prime? Discrees.

Give the example of twin prime?
 assignment -> Identify the differentiate pair of co-prime
 2, 3, 4, 5, 6, 7, 8, 9.

Black Board drawing charts.

Teaching Strategy

TLM

Evaluation

Lesson plan - 10 :-
Preliminary Information :-

Name of the student teacher :- Rohita Sahu

Regd. No. :- Y23ED156001

Subject :- Mathematics

Unit :- Playing with numbers

Topic :- Problem 1-6

Class :- VI

Time :- 40 minutes

Date :-

Name of the school :-

Address :-

Phone No. :-

Year :-

Signature :-

Date :-

Signature of the Principal :-

Date :-

Signature of the Teacher :-

Date :-

Teaching Stem	Teaching Strategy	TLM	Evaluation
<p>Problem</p>	<p>Q. Which of the following are co-prime.</p> <p>(i) 18 and 35</p> <p>(ii) 17 and 68</p> <p>Ans) Factors of 18 = 1, 2, 3, 6, 9, 18</p> <p>Factors of 35 = 1, 5, 7, 35</p> <p>18 and 35 are co-prime no. because both numbers having only common factor 1.</p> <p>(ii) 17 and 68</p> <p>Factors of 17 = 1, 17</p> <p>Factors of 68 = 1, 2, 4, 17, 34, 68</p> <p>17 and 68 are not co-prime because both numbers having more than 1 common factors i.e. 1, 17.</p> <p><u>Prime Numbers</u> -</p> <p>The numbers whose factors are 1 and the number itself are called prime numbers.</p> <p><u>Composite numbers</u> -</p> <p>Which numbers have more</p>	<p>Text Book</p> <p>Note Book</p>	<p>216 and 215 are co-prime.</p> <p>What is the greatest prime number between 20 and 30.</p>

Teaching Item	Teaching Strategy	TLM	Evaluation
	<p>Then two factors are called composite factors.</p> <p><u>Co-prime</u> Relatively Prime :- The numbers which have only 1 of the common factor are called co-prime.</p> <p><u>Twin prime</u> :- Twin prime are prime numbers that differ from each other by two.</p> <p>Write all the factors of the following numbers?</p> <p>(i) 36, (ii) 23, (iii) 96, (iv) 115</p> <p><u>Numbers</u> Factors 36 1, 2, 3, 4, 6, 9, 12, 18, 36 23 1, 23 96 1, 2, 3, 6, 9, 8, 12, 16, 24, 32, 48, 96 115 1, 5, 23, 115</p>	<p>Jent Book</p> <p>Note Book</p>	<p>2, 3 are prime numbers.</p> <p>2, 3 are relatively prime no.</p> <p>2, 3 are twin prime numbers.</p>

Lesson no - 11 :-

Preliminary Information

Name of the student Teacher :- Rohita Sahu

Regd. No. :- Y23ED156001

Subject :- Mathematics

Unit :- Playing with numbers

Topic :- Problem 7-12 Exercise part

Class :- VI

Time :- 40 minutes

Date :-

Name of the school :-

Signature

Date

MT

Signature

Teaching Item

Teaching Strategy

TLM

Evaluation

Q. Write two prime numbers whose product is 35?

Ans) Prime no. :- 2, 3, 5, 7, 11, ...

Product is 35 → the two numbers 5 and 7 as $5 \times 7 = 35$.

Exercise

Q. Express 36 as the sum of two odd primes.

Ans) Odd prime no. :- 11, 13, 17, 19, 23, 29, ...

Sum of 2 odd primes = 36
⇒ $13 + 23 = 36$

Q. Write 7 consecutive composite numbers less than 100.

Ans) 90, 91, 92, 93, 94, 95, 96

Q. Write the prime no. whose difference is 10.

Ans) 13 and 23

Q. Express 53 as the sum of the primes.

Ans) $13 + 17 + 23 = 53$

Text Book

Note Book

Write the prime no. whose product was 35.

Express 25 as the sum of prime numbers.

Teaching Item	Teaching Strategy	TLM	Evaluation
<p>Factorisation</p>	<p><u>Relative Prime</u> → The numbers which have 1 as common factor.</p> <p><u>Prime no.</u> → The numbers which have 1 and itself factor are called prime no.</p> <p><u>Prime Factorisation</u> → When a number is expressed as a product of its factors, we say that the number has been factorised. The process of finding the factors is called factorisation.</p> <p>Where all the factors are prime numbers, it is known as prime factorisation. Thus in prime factorisation the factors are obtained cannot be further factorised.</p> <p>There may be several ways in which a number can be factorised.</p> <p>The no 24 can be factorised as: (i) $24 = 2 \times 12$ (ii) $24 = 2 \times 2 \times 2 \times 3$ (iii) $24 = 2 \times 2 \times 6$ (Prime factorisation)</p>	<p>Chart</p>	<p>Define Prime Factor Division Method.</p>

(a) 34 = 5 x 7 x 2
(b) 54 = 2 x 3 x 3 x 3

Lesson plan - 137

Preliminary Information to be provided

Name of the student teacher: Rohita Seh

Regd. No. for HST: Y23ED156001

Subject: Mathematics

Topic: Playing with Numbers

Class: HET and General Factors

Date: 11/11/23

Time: 40 minutes

Name of the school: [unclear]

[unclear]

[unclear]

[unclear]

[unclear]

[unclear]

[unclear]

[unclear]

[unclear]

[unclear]

visited

revision

factor

division

define

Teaching
stem

Teaching
Strategy

Methods of prime factorisation
1) Division method :-
Prime factorisation of 42 using
division method.

We proceed as follows :-

Start dividing by the least
prime factor. Continue division till
the resulting number to be divided
is 1. Prime factorisation of 42 is

$$\begin{array}{r} 2 \overline{) 42} \\ \underline{36} \\ 6 \\ \underline{6} \\ 0 \end{array}$$

2) Factor tree Method :-
We can find the prime factorisation
of 60 by drawing a factor tree. To
find it we proceed as follows :-
Step-1 :- Express 60 as a product of
two numbers.

Step-2 :- Factorise 4 and 15. Further

* necessarily are composite no.

Step-3 :- Continue till all the factors are
prime number. $60 = 2 \times 2 \times 3 \times 5$

TLM

Chart.

Evaluation

Lesson plan 14 Feb

Preliminary Information

Name of the Teacher: Rohita Sahu
Regd. No: Y23ED156001

Subject: Mathematics

Unit: Playing with Numbers

Topic: Finding HCF

Class: VI

Date: 14/2/24

Time: 40 minutes

Name of the school: ...

Name of the teacher: ...

Name of the school: ...

Name of the teacher: ...

Name of the school: ...

Name of the teacher: ...

Teaching Item

Teaching Strategy

TLM

Evaluation

Prime factors \rightarrow
 all the factors are prime no.
 then it is called as prime factor.
 Common factors \rightarrow

Factor of 12 \div 1, 2, 3, 4, 6, 12
 Factor of 18 \div 1, 2, 3, 6, 9, 18

Now common factors of 12 and 18 are 1, 2, 3, and 6.
 HCF = (Highest common factor)

From the above example we find common factors of 12 & 18 = 1, 2, 3, 6

What is the highest common factor?
 6 is the highest common factor.

\therefore HCF (12 & 18) = 6

It is also called as greatest common divisor.

Method of finding HCF \rightarrow

Prime factorisation method \rightarrow

$$\begin{array}{r} 2 \overline{) 12} \\ \underline{6} \\ 6 \\ 3 \overline{) 6} \\ \underline{3} \\ 3 \\ 3 \overline{) 3} \\ \underline{3} \\ 0 \end{array}$$

$$\begin{array}{r} 2 \overline{) 18} \\ \underline{9} \\ 9 \\ 3 \overline{) 9} \\ \underline{3} \\ 6 \\ 2 \overline{) 6} \\ \underline{3} \\ 3 \\ 3 \overline{) 3} \\ \underline{3} \\ 0 \end{array}$$

HCF (12, 18) = $2 \times 3 = 6$

HCF and their Factors.

Chart

assignment
 Common factor.

worksheet
 can use same question

123456789001

123456789001

Lesson plan = 15

Preliminary Information

Name of the student teacher: Rohita Sahu

Regd. No. Y23ED156001

Subject: Mathematics

Topic: Playing with numbers

Date: Finding HCF by Continuous division method

Class: 4

Time: 40 minutes

Name of the school: [unclear]

Address: [unclear]

Pin code: [unclear]

Phone no: [unclear]

Year: [unclear]

Class: [unclear]

Topic: [unclear]

Date: [unclear]

Signature: [unclear]

MT

Signature: [unclear]

Lesson plan - 16

Preliminary Information

Name of the student teacher :- Rohita Sahu

Regd. No. Y23ED156001

Subject Mathematics

Unit Playing with Numbers

Topic Problems in exercise.

Date 16/07/23

Class V

Time 40 minutes

Name of the school :- Govt. P.S. Khandagiri

Signature: Rohita Sahu Date: 16/07/23

Teaching Item

Teaching Strategy

Q. Find the HCF of the following no. by prime factorisation and continued division method. (18, 27, 36)

(2) 18, 27, 36

Prime Factorisation Method:

$$\begin{array}{r}
 2 \overline{) 18} \\
 \underline{3 \overline{) 9}} \\
 \underline{3 \overline{) 3}} \\
 1
 \end{array}
 \quad
 \begin{array}{r}
 3 \overline{) 27} \\
 \underline{3 \overline{) 9}} \\
 \underline{3 \overline{) 3}} \\
 1
 \end{array}
 \quad
 \begin{array}{r}
 2 \overline{) 36} \\
 \underline{3 \overline{) 18}} \\
 \underline{3 \overline{) 6}} \\
 1
 \end{array}$$

18 = 2 x 3 x 3

27 = 3 x 3 x 3

36 = 2 x 3 x 3 x 2

Now highest common factor = 3 x 3 = 9

∴ HCF (18, 27, 36) = 9

Continuum Division Method:

HCF of 18, 27, 36

$$\begin{array}{r}
 18 \overline{) 27} \\
 \underline{18} \\
 9
 \end{array}
 \quad
 \begin{array}{r}
 9 \overline{) 36} \\
 \underline{36} \\
 0
 \end{array}$$

$$\begin{array}{r}
 9 \overline{) 18} \\
 \underline{18} \\
 0
 \end{array}$$

$$\begin{array}{r}
 \text{HCF (27, 18)} = 9 \\
 \text{HCF (18, 27, 36)} = 9
 \end{array}$$

Now proceed

Evaluation

find HCF of their prime factorisation method and continued division method.

Assignment

2011 PST 102

HCF of

Evaluation

TLM

Text Book
Note Book

Book
Notes

Book
Text

TLM

Teaching Item	Teaching Strategy	TLM	Evaluation
	<p>HCF (504, 729, 1080) = d</p> <p>Continuou division method (30) = d</p> <p>HCF (504, 729, 1080) =</p> $\begin{array}{r} 504 \overline{) 729} \\ \underline{504} \\ 225 \\ \underline{150} \\ 75 \\ \underline{75} \\ 0 \end{array}$ <p>HCF (504, 729) = 9</p> <p>Continuou division method =</p> <p>HCF (18, 27) = 9</p> <p>Prime factor of 504 = $2^3 \times 3^2 \times 7$</p> <p>Prime factor of 729 = 3^6</p> <p>Prime factor of 1080 = $2^3 \times 3^3 \times 5$</p> <p>HCF of (504, 729) = 9</p> <p>HCF of (504, 729, 1080) = 9</p>	<p>Text Book</p> <p>Note Book</p>	<p>HCF of 504, 729, 1080</p> <p>Assignment</p> <p>Find HCF of 132, 64, 96, 128?</p> <p>Write two co-prime & Find their HCF?</p>
<p>HCF (504, 729, 1080) = d</p>	<p>Continuou division method (30) = d</p> <p>HCF (504, 729, 1080) =</p> $\begin{array}{r} 504 \overline{) 729} \\ \underline{504} \\ 225 \\ \underline{150} \\ 75 \\ \underline{75} \\ 0 \end{array}$ <p>HCF (504, 729) = 9</p> <p>Continuou division method =</p> <p>HCF (18, 27) = 9</p> <p>Prime factor of 504 = $2^3 \times 3^2 \times 7$</p> <p>Prime factor of 729 = 3^6</p> <p>Prime factor of 1080 = $2^3 \times 3^3 \times 5$</p> <p>HCF of (504, 729) = 9</p> <p>HCF of (504, 729, 1080) = 9</p>	<p>Text Book</p> <p>Note Book</p>	<p>HCF of 504, 729, 1080</p> <p>Assignment</p> <p>Find HCF of 132, 64, 96, 128?</p> <p>Write two co-prime & Find their HCF?</p>
<p>HCF (504, 729, 1080) = d</p>	<p>Continuou division method (30) = d</p> <p>HCF (504, 729, 1080) =</p> $\begin{array}{r} 504 \overline{) 729} \\ \underline{504} \\ 225 \\ \underline{150} \\ 75 \\ \underline{75} \\ 0 \end{array}$ <p>HCF (504, 729) = 9</p> <p>Continuou division method =</p> <p>HCF (18, 27) = 9</p> <p>Prime factor of 504 = $2^3 \times 3^2 \times 7$</p> <p>Prime factor of 729 = 3^6</p> <p>Prime factor of 1080 = $2^3 \times 3^3 \times 5$</p> <p>HCF of (504, 729) = 9</p> <p>HCF of (504, 729, 1080) = 9</p>	<p>Text Book</p> <p>Note Book</p>	<p>HCF of 504, 729, 1080</p> <p>Assignment</p> <p>Find HCF of 132, 64, 96, 128?</p> <p>Write two co-prime & Find their HCF?</p>
<p>HCF (504, 729, 1080) = d</p>	<p>Continuou division method (30) = d</p> <p>HCF (504, 729, 1080) =</p> $\begin{array}{r} 504 \overline{) 729} \\ \underline{504} \\ 225 \\ \underline{150} \\ 75 \\ \underline{75} \\ 0 \end{array}$ <p>HCF (504, 729) = 9</p> <p>Continuou division method =</p> <p>HCF (18, 27) = 9</p> <p>Prime factor of 504 = $2^3 \times 3^2 \times 7$</p> <p>Prime factor of 729 = 3^6</p> <p>Prime factor of 1080 = $2^3 \times 3^3 \times 5$</p> <p>HCF of (504, 729) = 9</p> <p>HCF of (504, 729, 1080) = 9</p>	<p>Text Book</p> <p>Note Book</p>	<p>HCF of 504, 729, 1080</p> <p>Assignment</p> <p>Find HCF of 132, 64, 96, 128?</p> <p>Write two co-prime & Find their HCF?</p>

(* Co-prime numbers have only common factor i.e. 1. ∴ HCF of (co-prime nos.) = 1

Lesson plan - 17 +

Name of the student teacher + Rohita Sahu

Regd. No. = Y23ED156001

Subject = Mathematics

Unit = Playing with Numbers

Topic = Common Multiples

Class = VI

Time = 40 minutes

Date = 15/08/2023

Name of the school =

Address of the school =

Block =

Pin code =

Name of the institution =

Address of the institution =

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Pin code =

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Date =

Signature =

Teaching Item

Teaching Strategy

TLM

Evaluation

Common factor
 There are the numbers which are factors of all the given numbers.
 Factors of 12 = 1, 2, 3, 4, 6, 12
 Common Multiples (Page-39)
 The multiples of 4 and 6 are
 Multiplier of 4 = 4, 8, 12, 16, 20, 24, 28, ~
 Multiplier of 6 = 6, 12, 18, 24, 30, 36, 42, ~
 Common multiples of 4 and 6 are
 12, 24, 36, 48, ...
 Least common multiple - (Page-40)
 Common multiples of 4 and 6 are
 12, 24, 36, ~
 Least of them is 12.
 That means 12 is the lowest among the common multiples of both 4 and 6.
 Lowest common multiple or least common multiple (4, 6) = 12.
 LCM (4, 6) = 12.

Define HCF.

Chart showing the definitions.

Common Multiple of 6 and 12.

Least Common multiple.

Teaching Item	Teaching Strategy	TLM	Evaluation
	<p><u>Examples - 5</u> Two bells together. If the bells ring at every 3 minutes and 4 minutes respectively. After what time interval of time will they ring together again? Ans) 1st bell rings at after every 3 minutes, i.e. 3, 6, 9, 12, 15, 18, 21, 24, ... (multiples of 3 minutes) 2nd bell rings at every 4 minutes, i.e. 4, 8, 12, 16, 20, 24, 28, ... (multiples of 4 minutes) ∴ Both bells ring together after 12 min, 24 min, ... (Common multiple of both 3 and 4) = 12 There we can say that the least common multiple or two or more given nos. is the lowest (smallest) of their common multiples. Instead of writing all common multiples of given numbers every time to identify the least one of them, we can just find LCM of these numbers directly.</p>	<p>Chart showing Definition.</p>	<p>Least common multiple of 3, 4, 6, 9, 12, 15, 18, 21, 24, 27</p> <p>Assignment 1) Define common multiple. 2) Define LCM.</p>

Plan - 18
Preliminary Information

Name of the student teacher: Rehita Sahu

Regd. No: 23ED156001

Subject: Mathematics
Unit: Playing with numbers

Topic: Finding LCM

Date: 10/10/2023
Time: 40 minutes

Name of the school: ...

Signature of student teacher

Signature of observer

MTN

2023

2023

2023

Teaching Item

Find LCM

Teaching Strategy

LCM \rightarrow The least common multiple of two or more number is the lowest of their common multiple. (Page - 40)

Q. Finding LCM of Numbers.

① Prime factorisation method \rightarrow Prime factorisation method

LCM (36, 60)

Step-1 \rightarrow Express each number as a product of prime factors.

$\therefore 36 = 2 \times 2 \times 3 \times 3$ (Factors of 36)

$60 = 2 \times 2 \times 3 \times 5$ (Factors of 60)

Step-2 \rightarrow Take the common factors of both 36 and 60. i.e. $2 \times 2 \times 3 = 12$

Step-3 \rightarrow Take the extra factors of both 36 and 60 i.e. 3 & 5

Step-4 \rightarrow Take all common prime factor as well as extra prime factor of these two numbers 36 and 60. i.e. $12 \times 3 \times 5 = 180$

(Common prime factor) (Extra prime factor)

TLM

Chart Showing Definition

Evaluation

What is LCM.

Find LCM of

(i) 3, 4

(ii) 10, 15

(iii) 5, 6, 7

(iv) 10, 30

TLM

Evaluation

Teaching Item

Teaching Strategy

TLM

Evaluation

Teaching stem

Teaching Strategy

Hence LCM of (36460) = $2 \times 2 \times 3 \times 5 \times 7 \times 11 \times 13 \times 17$

Find the LCM of 4, 12, 24 ?

Factors of 4 = 2×2

Factors of 12 = $2 \times 2 \times 3$

Factors of 24 = $2 \times 2 \times 2 \times 3$

LCM = $2 \times 2 \times 2 \times 3 = 24$

all prime factors

Take the common factors of these no = $2 \times 2 \times 3$

Extra factors = 2

So the LCM (4, 12, 24) = $2 \times 2 \times 3 \times 2 = 24$

TLM

Evaluation

Find the LCM of 3, 4 ?

Find the LCM of 10, 30 ?

Optimiser
 upward
 speed

LCM of 10, 30 = 30

Teaching stem

Teaching Strategy

Evaluation

Lesson plan - 19 :-

Preliminary Information :-

Name of the student teacher :- Rohita shu

Regd No. :- Y23ED156001

Subject :- Mathematics

Unit :- Playing with numbers

Topic :- Finding LCM (Division Method)

Class :- VI

Time :- 40 minutes

Date :-

Name of the school :- Govt. Panchsahi

Address :- Barham

Pin :- 511215

Date :- Jan 17

Mathematics	Math	Preparation	Preparation
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Teaching Item

Teaching Strategy

Evaluation

If one of the two given numbers is multiple of the other then the greater number is the LCM of the given numbers.

Finding LCM

Division Method :-

- 1) To find LCM of 24 and 90.
- 2) Arrange the given no in a row.
- 3) Then divide by a least prime number which divide at least two of the given number and toward the numbers which are not divisible by that number of any two of the numbers which are behind.
- 4) Repeat the product of the division and the remaining numbers. Their the LCM of 24 and 90 is

$$2 \times 3 \times 4 \times 5 = 120 \times 3 = 360$$

Chart showing Definition

Find LCM of 3, 12 division method?

LCM (Division method)

LCM of 24 and 90 is 360

Teacher byou-1d

Teaching Item

Teaching Strategy

TLM

Evaluation

$$\begin{array}{r}
 2 \overline{) 24, 90} \\
 3 \overline{) 12, 45} \\
 4, 15 \\
 \hline
 \end{array}$$

LCM(24, 90)
 $= 2 \times 3 \times 4 \times 15$
 $= 360$

Q. Find the LCM of 21, 35 and 42.

Ans) $7 \overline{) 21, 35, 42}$
 $3 \overline{) 3, 5, 6}$
 1, 5, 2

LCM(21, 35, 42) = $7 \times 3 \times 5 \times 2$
 = 210

Q. Find the LCM of 45, 99, 132, 165.

$$\begin{array}{r}
 11 \overline{) 45, 99, 132, 165} \\
 5 \overline{) 45, 9, 12, 15} \\
 3 \overline{) 9, 12, 3} \\
 3 \overline{) 3, 4, 1} \\
 1, 1, 4, 1
 \end{array}$$

LCM(45, 99, 132, 165) = $11 \times 5 \times 3 \times 3 \times 4$
 $= 2160$

Find the LCM of 102, 119, 153?

Text Book

Lesson plan - 20/7

Preliminary Information

Name of the student teacher + Rohita Sahu

Regd. No. ÷ Y23ED156001

Subject + Mathematics

Unit + Playing with numbers

Topic - Problems in exercise

Class VI

Time - 40 minutes

Date

Name of the school ÷

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Teaching Item

Exercise Problems

Teaching Strategy

Q) Find the LCM of the following numbers by factorization method.

- 1) 12 and 15
- 2) 15 and 25

Ans) 12 and 15

Prime factors of 12 and 15 are as follows

$$12 = 2 \times 2 \times 3$$

$$15 = 3 \times 5$$

The LCM of 12 and 15 is

$$2 \times 2 \times 3 \times 5 = 60$$

So, LCM is 12 and 15 is 60.

(ii) 15 and 25

$$\Rightarrow 15 = 3 \times 5$$

$$25 = 5 \times 5$$

LCM of 15, 25

$$= 3 \times 5 \times 5 = 75$$

TLM

Text Book
Note Book

Evaluation

Find the LCM of 4, 8, 56, 72 by using factorization method.

Teaching Item	Teaching Strategy	TLM	Evaluation
Exercise Problem.	<p>Q.2) Find the LCM of the following numbers by using Division method.</p> <p>(i) 84, 112, 196</p> $ \begin{array}{r} 14 \overline{) 84, 112, 196} \\ \underline{2 \overline{) 6, 8, 14}} \\ 3, 4, 7 \end{array} $ <p>So the LCM of 84, 112, 196 is $14 \times 2 \times 3 \times 4 \times 7 = 2352$</p>	Text Book, Note, Book	Find the LCM of 102, 119, 153 using Division method.
	<p>Q.3) Find the smallest no. which is added to 250, is exactly divisible by 12, 14, 18.</p> <p>LCM $2 \overline{) 12, 14, 18}$ $2 \overline{) 6, 7, 9}$ $3, 7, 4$</p> <p>LCM = $6 \times 2 \times 7 \times 3 = 252$</p> <p>$252 - 250 = 2$ is the smallest no.</p>		