



G3.34 | COMPLETING SEQUENCES BY MULTIPLICATION

Number Operations Concepts - NCERT Chapter 9: How Many Times?

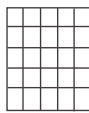
Students will be able to use multiplication tables to extend given sequences

40- 50 min

PRE REQUISITES:

G3.29 to G3.32 Know multiplication tables of 2 to 9

TLM



10X10 grid: : 4 students

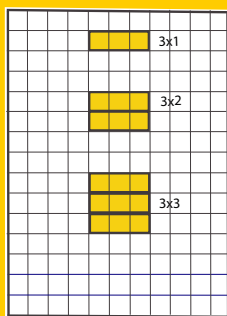
MISCONCEPTIONS

A number pattern based on a table starts from first number of that table

KEY VOCABULARY



PLAY



Using a blank grid to extend a number pattern

○ Divide the students into groups of 4. Distribute a 10X10 grid to each group

○ Remind students that mason workers make brick walls by laying the bricks one row at a time

○ Draw and show a row of 3 bricks. Write $3 \times 1 = 3$. Tell students that one row of 3 bricks has 3 bricks

○ Draw and show 2 rows of 3 bricks. Write $3 \times 2 = 6$

○ Tell students that 2 rows of 3 bricks have a total of 6 bricks

○ Ask the students to increase the brick wall one row at a time and write the multiplication number sentence alongside

QUESTION

How many bricks will be there in a wall that has 4 rows of 4 bricks? Draw and show



PROCESS

6	7	8	9	10
12	14	16	18	20
18				
24				
30				
36				
42				
48				
54				
60				

Identifying the number pattern and extending it using multiplication tables

○ Write 6, 12, 18, 24, 30, 36, 42, 48, 54, and 60. Tell that 6 is added to 6 to get 12. 6 is added to 12 to get 18 & so on

○ Explain that the sequence shows repeated addition of 6

○ Tell the students that the sequence must, therefore, correspond to the multiplication table for 6

○ Give examples of sequences & tell they can be extended by identifying the no. added repeatedly

○ Explain that sequences can also be extended by recalling the multiplication table in which the numbers are seen

○ Write 30, 40, 50 on the board. Tell these no.s are in a sequence & can be seen in table of 10. Point to the table of 10

QUESTIONS: From which table is the sequence 21, 28, 35, 42 taken? Tell the next term of the sequence: 18, 27, 36, 45,?

TEACHER'S NOTE: Putting up multiplication table charts will help in conducting this activity



PRACTICE

	6
18	$6 \times 1 = 6$
24	$6 \times 2 = 12$
30	$6 \times 3 = 18$
32	$6 \times 4 = 24$
	$6 \times 5 = 30$
	$6 \times 6 = 36$
	$6 \times 7 = 42$
	$6 \times 8 = 48$
	$6 \times 9 = 54$
	$6 \times 10 = 60$
	$6 \times 11 = 66$
	$6 \times 12 = 72$



Write the question on the blackboard and help the students solve

○ Help the students solve question 3 from the worksheet. Ask the students to circle the number that doesn't belong to the sequence

Circle the numbers that doesn't belong to the sequence :

- a) 20, 25, 32, 35, 40
- b) 18, 24, 56, 32, 36
- c) 8, 16, 21, 32, 40

QUESTION

How did you know which number does not belong in the sequence?

○ QUESTION

Which multiplication table does 18, 24, 30, 32 correspond to?

QUESTION

Which number should replace 32 in the first sequence? Why?



- ① SOLVED EXAMPLE : Extend the sequences given below by writing the next two terms

S.No.	Sequence	Next two terms
1	12, 16, 20	
2	24, 32, 40	
3	5, 10, 15	
4	9, 18, 27	
5	18, 21, 24,	27, 30

- ② Fill in the blanks

- a. 6, 12, 18, _____, 30
- b. 21, 28, _____, 42, _____, 56
- c. 27, _____, 36, _____, 54

- ③ Find the error in these sequences and write the correct sequences

- a. 20, 25, 32, 35, 40
- b. 18, 24, 56, 32, 36
- c. 8, 16, 21, 32, 40

- ④ Look at the following tables and write any four different number sequences here starting from the given number:

- a. 36, _____, _____, _____, _____
- b. 45, _____, _____, _____, _____
- c. 30, _____, _____, _____, _____

5	6
5 x 1 = 5	6 x 1 = 6
5 x 2 = 10	6 x 2 = 12
5 x 3 = 15	6 x 3 = 18
5 x 4 = 20	6 x 4 = 24
5 x 5 = 25	6 x 5 = 30
5 x 6 = 30	6 x 6 = 36
5 x 7 = 35	6 x 7 = 42
5 x 8 = 40	6 x 8 = 48
5 x 9 = 45	6 x 9 = 54
5 x 10 = 50	6 x 10 = 60
5 x 11 = 55	6 x 11 = 66
5 x 12 = 60	6 x 12 = 72

- ⑤ Circle every 9th number and write the sequence you get
9, 18, _____, _____, _____

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



7th is a sunday, 14th is also a sunday. Can you tell what will be the day on 28th of the month?