



G3.16 | ADDITION PROBLEMS USING CHUNKING

Number Operations Concepts - NCERT Chapter 3: Give and Take (sum upto 999)

Students will be able to solve quick addition problems using chunking method

40- 50 min

PRE REQUISITES:

G2.30 Know how to add no.s by regrouping

TLM

3

Number slips

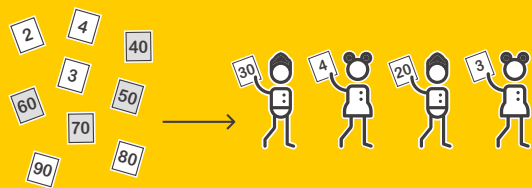
MISCONCEPTIONS

None

KEY VOCABULARY

None

PLAY



Breaking numbers into parts

○ Show 34 & 23 written on the board as column sum

○ Place no. slips no.ed 0, 1,2, 3, upto 9 & no. slips no.ed 10, 20,30, 40, upto 90

○ Ask a few students to compose their roll no.s using the no. slips. Remind the students that no. 45 is composed of 40 & 5

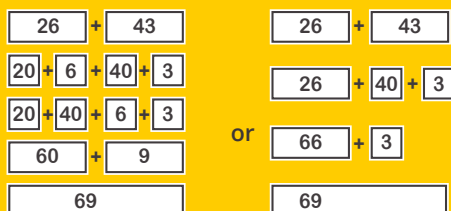
○ Allow students with one digit roll no.s to also compose their roll no.s using the no. slips

○ Remind students that roll no. 4 does not have any tens. The student must only pick card no.ed 4

TEACHER'S NOTE

Students can be asked to compose other no.s that they are familiar with, eg. age of their parents

PROCESS



Addition using chunks

○ Write 26 + 43 on the blackboard. Decompose & write 26 & 43 as tens & ones

○ Tell the students to add the tens together to get 60 & then add the ones together to get 9

○ Add 60 & 9 & write 69 as the final sum. Explain that no.s can be added quicker by decomposing them into tens & ones

○ Tell the students that an alternate way to add is to decompose only one no.

○ Write 26+ 40+ 3 & tell the students to first add 40 to 26 to get 66 & then add 3 to 66 to get 69

○ Write 47 + 76. Explain that 47 can be written as 40 + 7 & 76 can be written as 70 + 6

○ Add 40 + 70 to get 110. Next add 7 + 6 = 13. Explain that 110 & 13 can be added together by decomposing 13 into 10+3

○ Repeat the method using other examples to help the students to understand the method better

PRACTICE

$$30 + 2 + 40 + 7 > 70$$

Write the question on the black board & ask the students to solve

○ Help the students solve question 3a from the worksheet. Ask the student to estimate the sum of the no.s given

$$32 + 41 =$$

○ Emphasize that the sum of any two no.s can be estimated by decomposing the no.s & adding the tens. 30+40 is 70. Therefore, 32+41 > 70

○ Explain that estimating sums is a good method to check the calculations also. If 32+ 41 is written as 62, we can immediately tell that the answer is incorrect because we know that 32+41 >70

○ Help the students solve question 4 from the worksheet. Ask the students to decompose the no.s & add

$$\begin{aligned} \text{a. } 24 + 57 &= \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} \\ &= \underline{\quad} + \underline{\quad} = \underline{\quad} \\ \text{b. } 43 + 65 &= \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} \\ &= \underline{\quad} + \underline{\quad} = \underline{\quad} \end{aligned}$$



① SOLVED EXAMPLE : Complete the table given below:

Question	Decompose in tens & ones	Add the tens	Find the total sum
$37 + 73$	$30 + 7 + 70 + 3$	$100 + 7 + 3$	110
$67 + 16$			
$34 + 57$			
$28 + 30$			
$11 + 87$			

② Which of these numbers will add up to less than 90

- a. $34 + 23$
- b. $45 + 67$
- c. $78 + 20$

③ Fill in the blanks using the words "more" or "less"

- a. $32 + 41 = \underline{\hspace{2cm}}$ (more or less) than 70
- b. $91 + 12 = \underline{\hspace{2cm}}$ (more or less) than 60

④ Complete the addition

$$\begin{aligned}
 67 + 12 &= 60 + 7 + 10 + 2 \\
 &= \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + 7 + 2 \\
 &= \underline{\hspace{1cm}} + \underline{\hspace{1cm}} \\
 &= \underline{\hspace{2cm}}
 \end{aligned}$$

⑤ Write the number as tens and ones and add.

- a. $24 + 57 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
- b. $43 + 65 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$
 $= \underline{\hspace{2cm}} + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$



⑥ Circle the biggest number & explain how did you know

$23 + 45$

$34 + 50$

$55 + 45$