



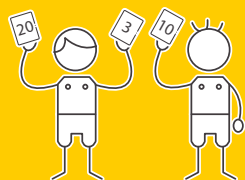
Students will be able to multiply a 2 digit number by another 2 digit number by chunking method

40- 50 min

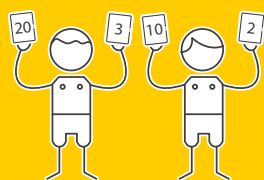
PRE REQUISITES:

G3.37 Know multiplying 2 digit number by 1 digit number

PLAY



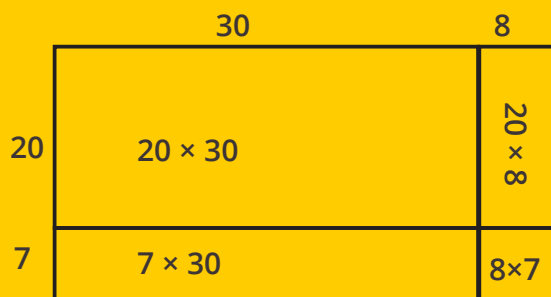
	20	30
10	200	30



	20	30
10	200	30
2	40	6

Estimating product using chunking & multiplication by 10s

PROCESS



Demonstrate multiplication using rectangle method

PRACTICE

	40	3
10	40×10 400	3×10 30
3	40×3 120	3×3 9



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

TLM



1 Set of Tens cards: 10 to 90
1 Set of Ones cards: 0 to 9

MISCONCEPTIONS

None

KEY VOCABULARY

None

○ Divide students in groups of 10s.

○ Ask each group to count and write how many fingers do they in all. Tell the students that 10 times 10 is 100

QUESTION

How many total fingers and toes does each one of you have?

○ Ask each group to count and write how many fingers and toes do they have in all

○ Tell students that 10 times 20 is 100. Write $10 \times 10 = 100$, $10 \times 20 = 200$. Ask if they can guess what is 10×30 , 10×40 & so on

○ Point to the number pattern. Tell students one need not add numbers again & again to find the product of Tens numbers

QUESTION

Will 23 times 12 be more than 23 times 10? How do you know?

○ Tell students that when multiplying 2 digit numbers with 1-digit numbers we decompose only one number into Tens & Ones

○ Explain when 2-digit by 2-digit no.s are multiplied both no.s are decomposed & we use rectangles with 2 sections as shown

○ Write 38×27 . Split 38 into 30 and 8. Split 27 into 20 and 7. Show the multiplication diagrammatically as shown

○ Explain how 4 sections for 4 different products are made & all 4 products together give final product

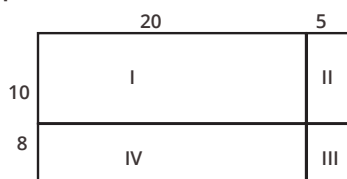
○ Tell both the parts of 27, ie. 20 and 7 are multiplied by both the parts of 38 ie. 30 and 8

○ Write multiplication products as shown. Add the multiplication product and tell students that 27×38 is 1026

○ Point to the section for 20×30 and explain that the product of this part is 600

○ Next tell that We can say that the overall product of 27×38 must be greater than 600

○ Help the students solve question 2 from the worksheet. Ask the students to find the product for each section

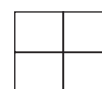


QUESTION

The number in section IV will be ____.
Product of 5 and 8 will be written in the section ____.
The sum of products in all sections is ____

○ Help the students solve question 4 from the worksheet. Ask the students to solve the following by making rectangles

$14 \times 13 =$ _____



QUESTION

Without adding the products of all 4 sections, Can you tell whether 14×13 is more than 100 or not? How?



① SOLVED EXAMPLE : Fill correct numbers in the blank boxes:

$$100 + 20 + 20 + 4$$

$$= 144$$

	10	2
10	$10 \times 10 = 100$	$2 \times 10 = 20$
2	$2 \times 10 = 20$	$2 \times 2 = 4$

② Find the product for each section and answer the following questions:

The product in section IV will be ____.

Product of 5 and 8 will be written in the section ____.

The sum of products of all sections is ____.

	20	5
10	I	II
8	IV	III

③ What is 43 times 13. Complete the multiplication and find out

	40	3
10	40×10 400	3×10 30
3	40×3 120	3×3 9

④ Multiply the numbers

a. $14 \times 13 =$ _____

b. $24 \times 21 =$ _____

c. $34 \times 17 =$ _____

⑤ Find the error and correct it
 23×12

	20	3
10	1×20	3×1
8	2×20	2×3



How many days would a year have , if each month had 31 days?