



G3.37 | MULTIPLYING A 2-DIGIT NUMBER BY A 1-DIGIT NUMBER

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

Students will be able to multiply a 2 digit number by a 1 digit number using chunking method

40- 50 min

PRE REQUISITES:

G3.36 Know how to determines unknown number in a multiplication equation

TLM



Number slips
A bowl

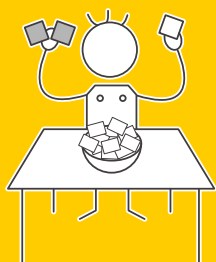
MISCONCEPTIONS

None

KEY VOCABULARY

None

PLAY



$$20 + 3 = 23$$

Doubling a 2 digit number

○ Prepare 3 sets of number slips marked 10, 20, 30, 40, 50, 1, 2, 3, 4, 5, 6, 7, 8, 9 and 0. Place all 3 sets in a bowl

○ Call two students. Ask student 1 to pick number slips according to the number you call out

○ Ask student 2 to pick double of each number slips that student 1 picks up

○ Call out 23. Ask the two students to pick number slips

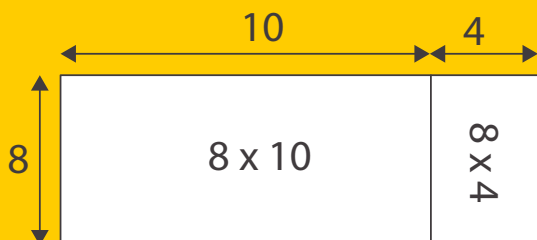
QUESTION

How many number slips marked 20 did the student 2 pick?

QUESTION

What is the total value of number slips picked up student 2

PROCESS



Multiplication by splitting a 2-digit numbers as Tens and Ones

○ Write "14 X 8". Draw a rectangle and explain that 14 can be written as 10+4

○ Tell the students that 14X8 is the same as 10X 8 + 4X8. Write 8 along the breadth of the rectangle

○ Emphasize that 8 must be multiplied to both the parts of the 2-digit number. Solve 10x8+4x8 & tell students that 14x8 = 112

○ Tell 2 digit no.s can be multiplied by single digit no.s by splitting the 2 digit no. as Tens & Ones

○ Explain to the students that multiplying any numbers by 10, 20, 30, and so on is easier

○ Therefore overall calculations can be made quicker using this strategy

○ Remind the students that 10X2 = 20, 20X2= 40, and 30X2 = 60

○ Provide more examples and demonstrate splitting 2-digit numbers as Tens and Ones

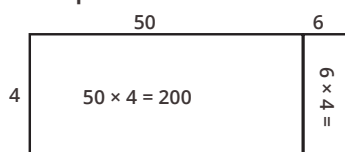
PRACTICE

$$\begin{aligned} 34 \times 3 &= 30 \times 3 + 4 \times 3 \\ &= 90 + 12 \\ &= 102 \end{aligned}$$



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

○ Help the students solve question 2 from the worksheet. Ask the students to complete the multiplication

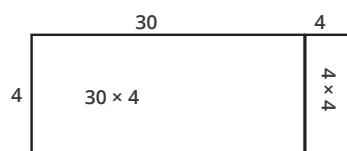


$$50 \times 4 + 6 \times 4 = 200 + \underline{\quad} = \underline{\quad}$$

○ Tell the students that even without calculating completely, we can tell that the product of 56X6 is more than 200 because 50X4 is 200

○ Help the students solve question 3 from the worksheet. Ask the students to multiply 34 and 3 by splitting 34 into 30 and 4

○ Encourage the students to diagrammatically represent the multiplication fact as shown below



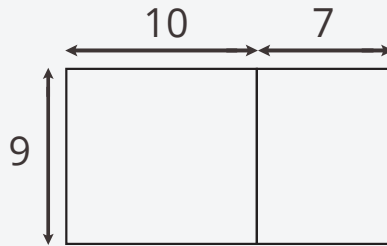


① SOLVED EXAMPLE : Fill correct numbers in the blank boxes:

$$9 \times 10 + 9 \times 7$$

$$= 90 + 63$$

$$= 153$$

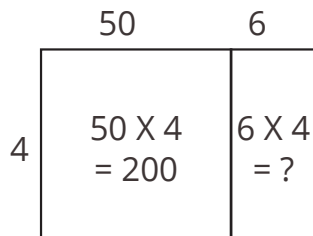


② Complete the multiplication

$$50 \times 4 + 6 \times 4$$

$$= 200 + \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

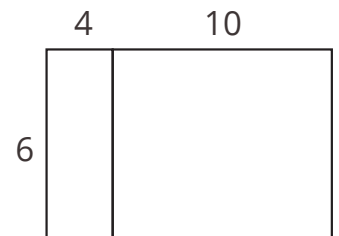


③ Spot the error in calculating 14 times 6

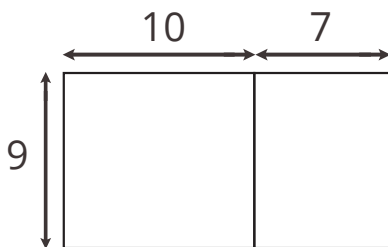
$$6 + 4 + 6 \times 10$$

$$= 10 + 60$$

$$= 70$$



④ What is 17 times 9



⑤ Complete the multiplication sentences:

a. $32 \times 3 = 90 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

b. $26 \times 3 = \underline{\hspace{2cm}} + 18 = 78$

c. $42 \times 5 = 200 + \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$



Estimate the product

22×6 _____ 100 (Fill in the blank using "more than" or "less than")

14×4 _____ 200 (Fill in the blank using "more than" or "less than")