



G3.42 | MULTIPLICATION TO CHECK DIVISION VALUES

Number Operations Concepts - NCERT Chapter 12: Can We Share?

Students will be able to check calculations involving division using multiplication

40- 50 min

PRE REQUISITES:

G3.40 Know how to write division number sentences



TLM



20 Kidney beans: 4 students
Paper slips: 4 students



MISCONCEPTIONS

None



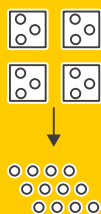
KEY VOCABULARY

None

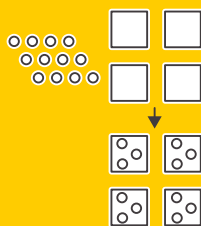


PLAY

4 times 3



12 divided by 4



Visualizing division and multiplication of same set of numbers



Divide students in groups of 4. Distribute 12 kidney beans and 4 pieces of paper to each group



Remind the students that 3×4 or 3 times 4 can be represented by making 4 groups of 3 kidney beans each



Ask the students to make 4 groups of 3 kidney beans each by placing 3 beans each on 4 paper pieces



QUESTION

How much is 3 times 4?



Ask the students to collect the beans and now show $12 \div 4$ (12 divided into 4 groups)



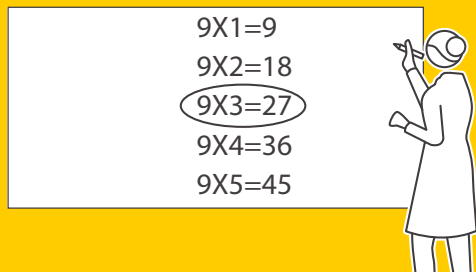
Allow them to observed the pattern that arrangement of beans to show 3×4 is the same as the arrangement to show $12 \div 4$



Repeat the activity with other sets of numbers eg. $18 \div 2$ and 2×9 , 2×3 and $6 \div 2$



PROCESS



Using Multiplication to check division facts



Write " $27 \div 3 = 9$ " on the board. Tell the number statement can be read as "27 divided into 3 groups gives 9 in each group"



Write $9 \times 3 = 27$. Tell the students that the number statement can be read as 3 groups of 9 make a total of 27



Point to the numbers & explain that numbers multiplied to get 27 also represent how 27 can be divided into equal groups



Tell that we can check the correctness of a division statement by knowledge of multiplication facts



Write $56 \div 7 = 8$. Show 7s multiplication table. Point at 8th multiplication fact. Say $7 \times 8 = 56$ the division statement is correct



Emphasize that division statement can be checked for its correctness by using the multiplication facts



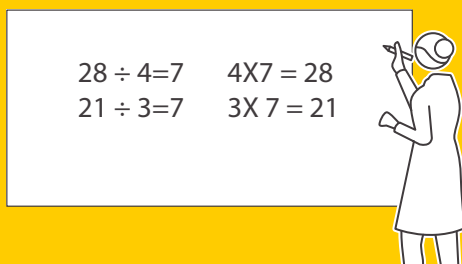
These multiplication facts are based on the same set of no.s



Summarize that product of 2 no.s when divided by any one of the two no.s always gives the other number



PRACTICE



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



Help the students solve question 3 from the worksheet. Ask the students to look at multiplication tables for each division statement and check if these are correct

$28 \div 4 = 7$	
$21 \div 3 = 7$	
$72 \div 8 = 8$	
$54 \div 9 = 6$	



Encourage students to cross check the multiplication facts they write using multiplication tables



Help the students solve question 4a from the worksheet. Ask the students to write division statement for each multiplication fact:

$4 \times 4 = 16$: $\underline{\quad} \div \underline{\quad} = \underline{\quad}$





- ① **SOLVED EXAMPLE :** For each problem statement write the division statement and check it by writing corresponding multiplication fact:

S.No.	Problem statement	Division statement	Write multiplication facts
1	35  friends traveling in 7  cars	$35 \div 7 = 5$	
2	45  pencils are kept in 9 boxes 	$45 \div 9 = 5$	
3	28 fish are in 7 aquariums 	$28 \div 7 = 4$	$7 \times 4 = 28$ 

- ② Fill in the blanks:

Since $1 \times 6 = 6$ Since $8 \times 5 = 40$

Then $6 \div 1 = \boxed{}$ Then $40 \div 8 = \boxed{}$

Since $3 \times 4 = 12$ Since $1 \times 3 = 3$

Then $12 \div 3 = \boxed{}$ Then $3 \div 1 = \boxed{}$

- ③ Check these division statements by looking at the multiplication tables

$28 \div 4 = 7$	
$21 \div 3 = 7$	
$72 \div 8 = 8$	
$54 \div 9 = 6$	

- ④ Write these multiplication statements as division statements

a. $4 \times 4 = 16$: $16 \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

b. $3 \times 8 = 24$: $24 \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$

c. $7 \times 4 = 28$: $28 \div \underline{\hspace{1cm}} = \underline{\hspace{1cm}}$



Muskaan bought 5 packets of hair bands. Each packet had 4 bands. She now has 20 bands. If she wants to distribute all 20 bands between 4 of her friends, how many bands should she give to each friend?