

CLASS: III

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SUBJECT: Maths

L- Multiples and Products

Pre- activity :-

Let's Begin

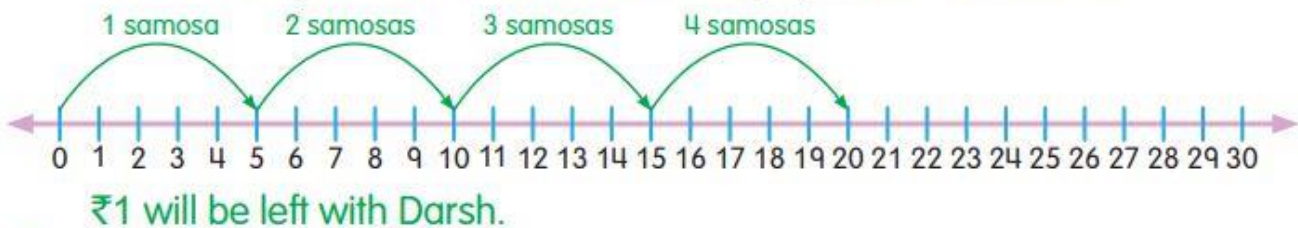
Yug, there are 10 samosas in each plate.
How many samosas are there on 2 plates?

Darsh, there are $10 + 10 = 20$ samosas
in total.



Look at the picture and answer the following questions.

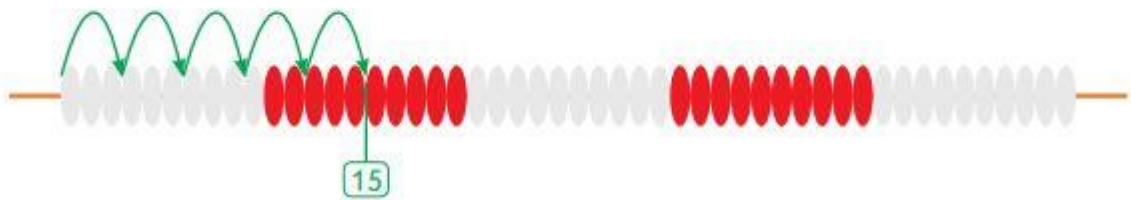
- a) Are these 20 samosas enough for 6 children, if each child gets 2 samosas?
How did you work out? 6 times 2 / $2 + 2 + 2 + 2 + 2 + 2 = 12$
- b) Write the number sentence for the price of 3 pakoras. $3 \times 7 = 21$
- c) If Darsh has ₹21 and would buy 4 samosas, how much money will be left with him? Represent the amount he will pay on the number line.



- d) If there are 8 adults and each one will have 4 pakoras. How many pakoras will be required? $8 \times 4 = 32$

Number Talk ¹²³

Could we have used counting string to work out our answer? Discuss and show your working on the number string given below.



Concrete Stage

Use 'Counting String' or 'Dienes Blocks' to work out the following.

- a $6 + 6 + 6 = 3$ times $6 = 18$
- b $7 + 7 + 7 + 7 + 7 + 7 = 6$ times $7 = 42$
- c $10 + 10 + 10 + 10 + 10 + 10 + 10 = 7$ times $10 = 70$
- d $5 + 5 + 5 + 5 + 5 + 5 + 5 = 7$ times $5 = 35$
- e $11 + 11 + 11 = 3$ times $11 = 33$

Pictorial Stage

How many are there in all?

a



$$5 \text{ groups of } 4 = 20$$

$$5 \times 4 = 20$$

There are 20 eggs in all.

b



$$3 \text{ groups of } 8 = 24$$

$$3 \times 8 = 24$$

There are 24 cupcakes in all.

c



$$4 \text{ groups of } 2 = 8$$

$$4 \times 2 = 8$$

There are 8 chicks in all.

d



$$5 \text{ groups of } 3 = 15$$

$$5 \times 3 = 15$$

There are 15 carrots in all.

Abstract Stage

Rewrite the following as repeated additions.

a $3 \times 7 = \underline{7 + 7 + 7}$

b $2 \times 9 = \underline{9 + 9}$

c $5 \times 6 = \underline{6 + 6 + 6 + 6 + 6}$

d $4 \times 8 = \underline{8 + 8 + 8 + 8}$

130

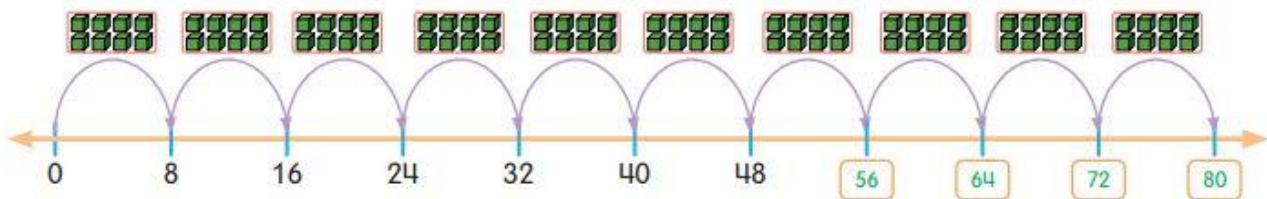
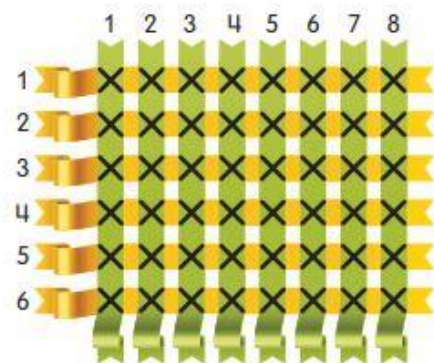
Worksheet

5.1



Great! I can construct multiplication tables using these colourful ribbons.

Darsh has arranged the ribbons like this and then counted how many times both the ribbons crossed each other and represented on the number line.



Observe the number line and complete the table of 8.

Quick Maths

Multiples are basically the answers from any times table.

e.g. $3 \times 4 = 12$ or $4 \times 3 = 12$

So, 12 is a multiple of both 3 and 4.

Concrete Stage

Use 'Dienes Blocks' and 'Number Line' to complete the multiplication table of 9.

a $1 \times 9 = 9$

b $2 \times 9 = 18$

c $3 \times 9 = 27$

d $4 \times 9 = 36$

e $5 \times 9 = 45$

f $6 \times 9 = 54$

g $7 \times 9 = 63$

h $8 \times 9 = 72$

i $9 \times 9 = 81$

Answer: Answer may vary.

Pictorial Stage

1 Draw ribbons to represent the multiplication table of 11.

2 How much these things cost?

a  5 toffees cost ₹ 10

b  4 muffins cost ₹ 20

Abstract Stage

1 Complete the following.

a $2 \times 7 = 14$

b $3 \times 9 = 27$

c $4 \times 9 = 36$

d $5 \times 2 = 10$

e $5 \times 8 = 40$

f $3 \times 10 = 30$

Think Aloud

How would you find the multiplication table of 12? Work out mentally.

Answer: Answer may vary.

Concrete Stage

Use 'Dienes Blocks' to complete the table.

	Number	Double	Triple
a	7	14	21
b	15	30	45

Pictorial Stage

Look at the images to fill in the boxes.



$$3 \text{ groups of } 8 = 24$$

There are 24 biscuits in all.



$$2 \text{ groups of } 4 = 8$$

There are 8 fingers in all.

Abstract Stage

Yug has invited his friends on his birthday.

- a He prepared mini sandwiches for 4 friends and he made 3 sandwiches for each one of them. How many sandwiches did he make? Answer: 12
- b He also made 4 glasses of juice using 2 oranges for each glass. How many oranges did he use? Answer: 8

Worksheet

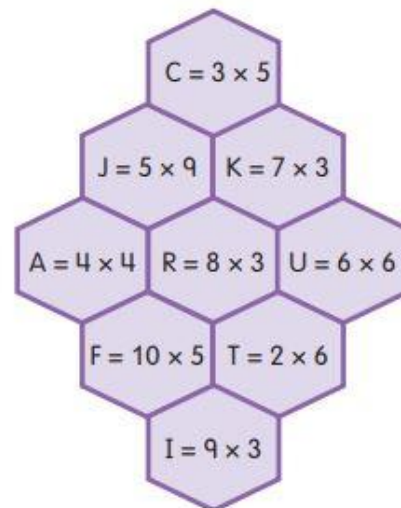


Linking Chain EVS and English

Multiply the following. Write the corresponding letter of each multiplication statement above the given products, and decode the name of a fruit.

Code:

J	A	C	K	F	R	U	I	T
45	16	15	21	50	24	36	27	12



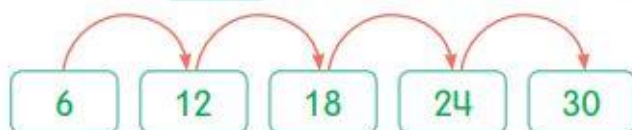
Blooming Questions

1 Fill in the boxes.

a How many ice-cream cones are there in all?

There are groups of ice-cream cones.

There are ice-cream cones in each group.



$$5 \times 6 = \text{30}$$

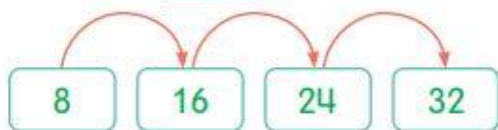
There are ice-cream cones in all.



b How many juice bottles are there in all?

There are groups of juice bottles.

There are juice bottles in each group.



$$4 \times 8 = \text{32}$$

There are juice bottles in all.



2

Linda's mother is baking biscuits for the school carnival. She puts the biscuits in different packets. The number of biscuits in packets are either the multiple of 5 or multiple of 6. Linda is trying to sort the packets in two different bags according to the multiples. Which packets she would not put in any of the bags? Why?



Answer: 49 and 56 are not the multiples of 5 or 6.

3

Write a multiplication sentence to describe each array.

a



$$6 \times 8 = 48$$

b



$$5 \times 7 = 35$$

135

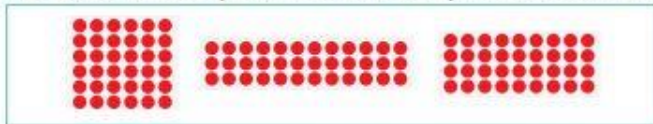
4

Here are some dot sheets. The products are given in each set. Unfortunately, Morris the cat has spoiled some sheets from each set. Work out the number of missing dots from each set. Come up with at least 3 different arrangements of dots for each question. One has been done for you.



a

The total is thirty-six. How many dots could be missing?



b

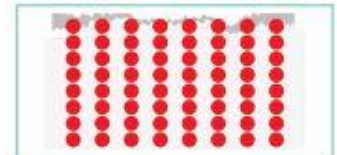
The total is seventy-two. How many dots could be missing?



Answer: $72 - 36 = 36$ dots

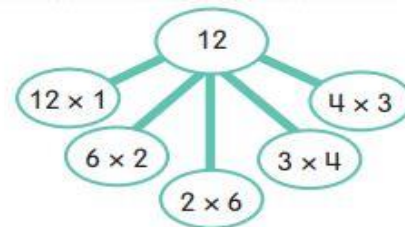
c

The total is eighty. How many dots could be missing?



Answer: $80 - 20 = 60$ dots

5 Represent the numbers 12, 18, 15, and 20 as a product of 2 numbers. As many groups you may make to find the same. One has been done for you.



Answer:

18: 1×18 ; 2×9 ; 3×6

15: 1×15 ; 3×5

20: 1×20 ; 2×10 ; 4×5

Mental Maths

Solve mentally.

a $5 \times 6 = 30$

b $8 \times 3 = 24$

c $2 \times 7 = 14$

d $6 \times 8 = 48$

e $8 \times 4 = 32$

f $9 \times 3 = 27$

g $7 \times 1 = 7$

h $4 \times 9 = 36$

i $7 \times 7 = 49$

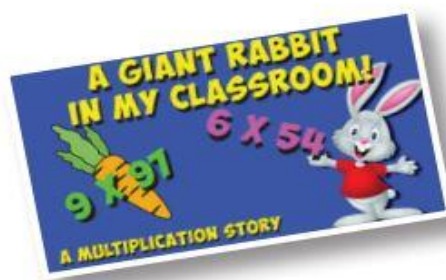
j $3 \times 3 \times 3 = 27$

k $5 \times 2 \times 5 = 50$

l $6 \times 6 = 36$

Go Further

Read the story **Giant Rabbit Multiplication Tale!** by *Mr. R.'s Songs*.



136

Post Activity:-

What are the first five multiples of 7?

1.

Solution:

To find: First five multiples of 7.

Multiples of 7 through Multiplication	Multiples of 7 through Addition
$1 \times 7 = 7$	7
$2 \times 7 = 14$	$7 + 7 = 14$
$3 \times 7 = 21$	$7 + 7 + 7 = 21$
$4 \times 7 = 28$	$7 + 7 + 7 + 7 = 28$
$5 \times 7 = 35$	$7 + 7 + 7 + 7 + 7 = 35$

2. Find the common multiples of 3 and 5.

Solution:

The multiples of 3 are 3, 6, 9, 12, **15**, 18, 21, 24, 27, **30**, ..

The multiples of 5 are 5, 10, **15**, 20, 25, **30**, 35, 40, ...

Therefore, the common multiples of 3 and 5 are 15, 30, 45, 60, and so on.

3. What are the first three common multiples 4 and 8?

Solution:

The multiples of 4 are 4, **8**, 12, **16**, 20, **24**, 28, 32, 36, 40, ...

The multiples of 8 are **8**, **16**, **24**, 32, 40, 48, 56, 64, 72, 80, ...

Hence, the first 3 common multiples of 8, 16 and 24.

Subject Teacher

HOD

COORDINATOR

PRINCIPAL

