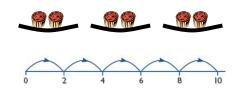
X Multiplication X

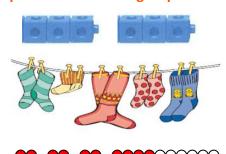
Counting in equal steps: 2s, 3s, 5s, 10s







Repeated addition of groups:



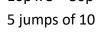
3 + 3 = 6Double 3 is 6

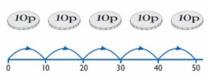
2 + 2 + 2 + 2 + 2 = 10 2 x 5 = 10 2 multiplied by 5 5 pairs

2 x 3 or 3 groups of 2

$$10p+10p+10p+10p+10p = 50p$$

 $10p \times 5 = 50p$

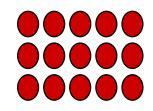




3 x 4

Describing an array:

taught with division facts

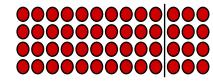


$$3 \times 5 = 15$$
 $5 \times 3 = 15$

$$15 \div 5 = 3$$
 $15 \div 3 = 5$

Partitioning: to mentally multiply

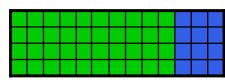
17 x 3 = 10 x 3 = 30 7 x 3 = 21 30 + 21 = 51 **Splitting arrays:**



13 x 4

10 x 4

Expanded grid:



13 x 4

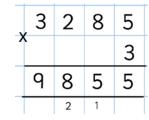
10 x 4

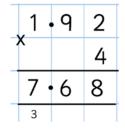
3 x 4

Compact grid method:

X	40	3
6	240	18

Vertical multiplication:

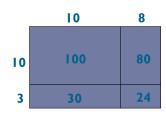




Compact Vertical multiplication:

	2	5	6	×	1	8	=					
	Extimate	2	5	0	x	5	0	=	5	0	0	0
		2	5	6								
	×		1	8								
	2	5	6	0								
	2	0	4	8								
,	4	6	0	8								
		1										

Long multiplication: grid and vertical



	1	8			
Х	1	3			
	5	4	(3	х	18)
1	8	0	(3	х	18)
2	3	4			