

Problems involving the distributive law

Explanation

When solving multiplication problems it can help to split a number into parts and multiply each part separately.

Example A farmer has six rows of cabbages with **13** cabbages in each row.
How many cabbages altogether?

These diagrams show that the cabbages can be split in different ways and each part multiplied separately. When the parts are added the answers will be the same.

13 split into **4** and **9**

6×4	6×9
x x	x x
24	54
$24 + 54 = 78$	

13 split into **8** and **5**

6×8	6×5
x x	x x
48	30
$48 + 30 = 78$	

13 split into **10** and **3**

6×10	6×3
x x	x x x x x x x x x x x x x x x x x x
60	18
$60 + 18 = 78$	


Split the larger number however you like to make the multiplication easier.


Activities


1 A gardener has four rows of leeks with **17** in each row.
How many leeks altogether? _____

2 A gardener has seven rows of cauliflowers with **19** in each row.
How many cauliflowers altogether? _____

3 Find the area of each of these rectangles.

a  _____

b  _____

c  _____

d  _____

e  _____