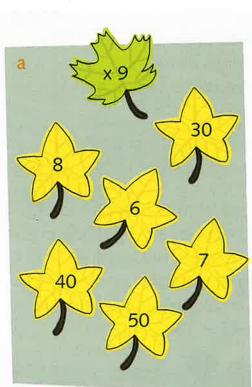
ultiplication TO x TO using the expanded ritten method

Use the expanded written method of long multiplication to calculate TO × TO

Estimate and check the answer to a calculation



For each question, multiply each of the numbers on the yellow leaves by the number on the green leaf at the top.







1 Approximate the answer to each calculation.

Example
$$63 \times 38 \rightarrow 60 \times 40 = 2400$$

 $a 46 \times 38$

b 72 × 39

c 58 × 56

d 64 × 83

e 67 × 49

f 96 × 26

g 88 × 38

h 74 × 68

56 × 93

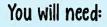


2 Use the expanded written method to work out the answers to the calculations in Question 1. Choose which method is easiest for you.

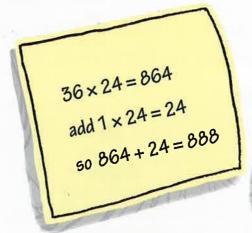
Example										
	Th	Н	Т	0		Th	Н	T	0	
			6	3				6	3	
	×		3	8	· ·	×		3	8	
		5	0 ²	4	(63×8)	1	8	9	0	(63 x 30)
	1	8	9	0	(63×30)		5	0 ²	4	(63 x 8)
	2	3	9	4		2	3	9	4	
	1					1				

nallenge 3

Ali tried to work out the answer to 37×24 on his calculator but he found that the 7 key on the calculator was broken. He used these two methods to find his answer:



calculator



38 × 24 = 912 subtract 1 × 24 = 24 so 912 - 24 = 888



The 7 key is still broken. Explore methods of finding the answer to the following calculations using other keys on the calculator.

Record your methods.

a 67 × 58

b 45 × 27

c 77 × 38

d 73 × 47

e 97 × 57

f 37 × 37

g 77 × 77

h 397 × 965

428 × 768

647 × 321

k 274 × 83

175 × 175



