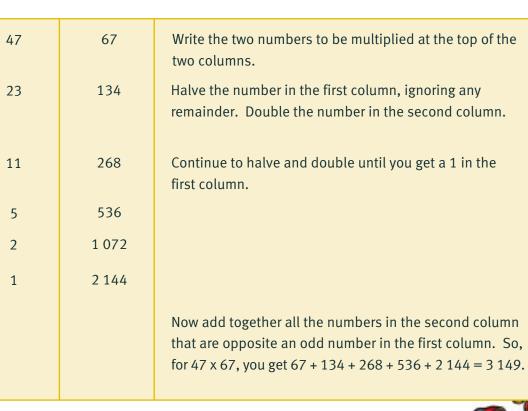# Double Russian

ACTIVITY

You need: a calculator

Many years ago, Russian peasants used to do multiplication by a simple method of doubling and halving, along with basic addition of 2-, 3-, and 4-digit numbers.

This is how they would multiply 47 x 67:

47	67	Write the two numbers to be multiplied at the top of the two columns.
23	134	Halve the number in the first column, ignoring any remainder. Double the number in the second column.
11	268	Continue to halve and double until you get a 1 in the first column.
5	536	
2	1 072	
1	2 144	
		Now add together all the numbers in the second column that are opposite an odd number in the first column. So, for 47 x 67, you get 67 + 134 + 268 + 536 + 2 144 = 3 149.

1. Check the result on your calculator.

2. Try the Russian method with some other 2-digit numbers.

3. a. Will this method work for 3-digit or 4-digit numbers?
   b. Will it work if both numbers are even? Investigate.