

Instructions: Patterns when using a grid to multiply pairs of two-digit numbers (Answers)

Work in pairs to follow these instructions.

- Use the grid method to work out 24×36 . Compare all the calculations. What do you notice about two of the products?

x	20	4
30	600	120
6	120	24

720 30×4 and 6×20 have the same product.
144
864

- Use the grid method to work out 21×63 . Compare the calculations. What do you notice about two of the products?

x	20	1
60	1200	60
3	60	3

1260 60×1 and 3×20 have the same product.
63
1323

- Try working out 24×48 and compare the calculations.

x	20	4
40	800	160
8	160	32

960 40×4 and 8×20 have the same product.
192
1152

- Now try 34×68 . Have a discussion about what patterns you notice.

x	30	4
60	1800	240
8	240	32

2040 60×4 and 8×30 have the same product.
272
2312

- Can you see what it is about the digits of the two numbers being multiplied that gives this pattern in the answers? **Answers will vary.**

Hint: Look at the first digit in the first number and the second digit in the second number.
Then look at the second digit in the first number and the first digit in the second number!

- Write four multiplications that you think will also produce the same pattern in the products. Use the grid method to work them out and check that they do. **Answers will vary.**