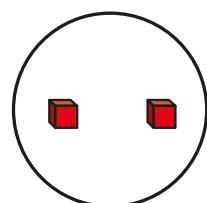
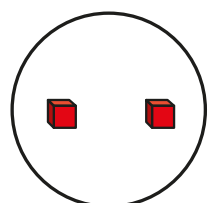
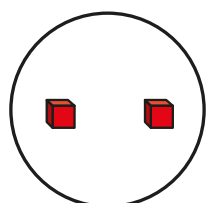


# Related calculations



1 Complete the number sentences.

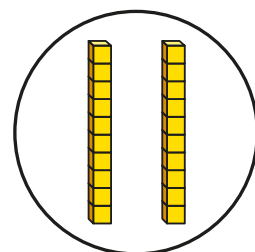
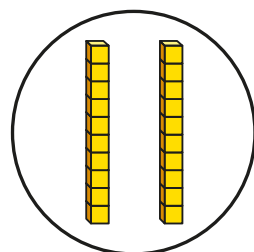
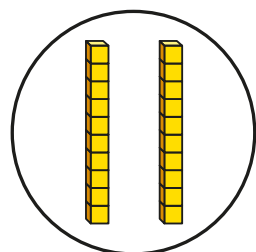
a)



$$3 \times 2 \text{ ones} = \square \text{ ones}$$

$$3 \times 2 = \square$$

b)



$$3 \times 2 \text{ tens} = \square \text{ tens}$$

$$3 \times 20 = \square$$

2 Use base 10 to represent the multiplications.  
Complete the number sentences.

a)  $2 \times 4 = \square$

$$2 \times 40 = \square$$

b)  $5 \times 3 = \square$

$$5 \times 30 = \square$$

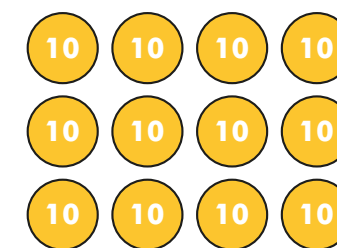
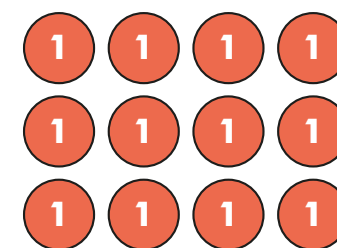
c)  $5 \times 2 = \square$

$$5 \times 20 = \square$$

d)  $2 \times 8 = \square$

$$80 \times 2 = \square$$

3 Nijah makes these arrays.



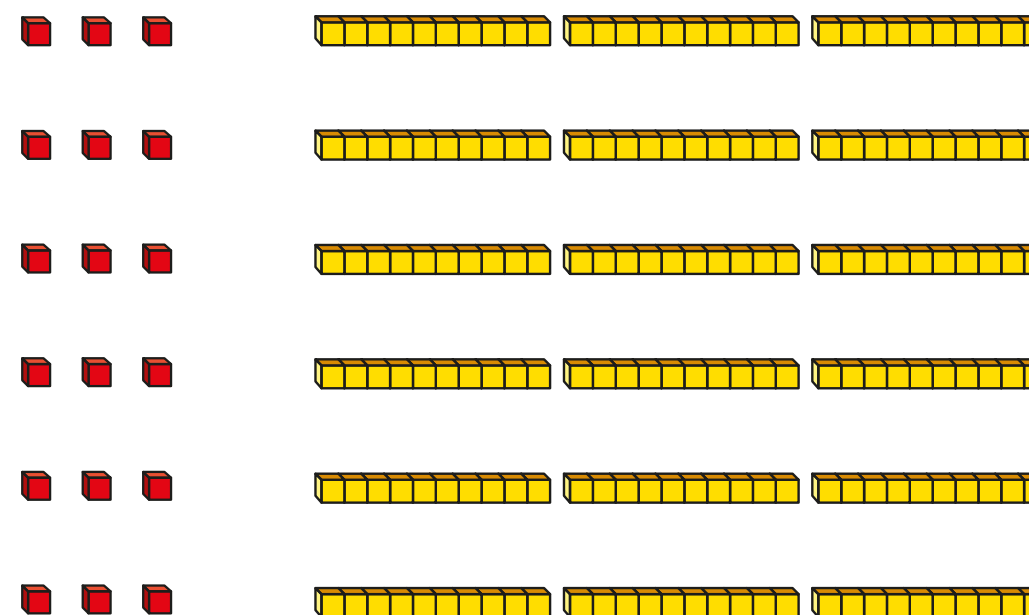
Complete the number sentences.

$$4 \times 3 = \square$$

$$4 \times 30 = \square$$

What is the same about the arrays? What is different?

4 Scott uses base 10 to make two related calculations.  
Use the base 10 to complete Scott's calculations.

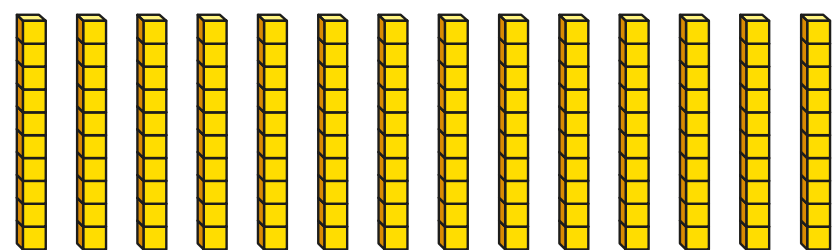


$$6 \times 3 = \square$$

$$6 \times 30 = \square$$

How does the answer to the first calculation help you work out the second calculation?

- 5 Use these pieces of base 10 to complete the divisions.

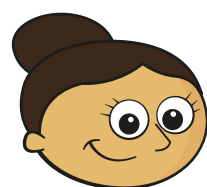


$14 \div 2 = \square$

$140 \div 2 = \square$



6



I know  
 $5 \times 7 = 35$

Use Dora's fact to complete the calculations.

a)  $5 \times 70 = \square$

d)  $35 \div 5 = \square$

b)  $7 \times 5 = \square$

e)  $350 \div 5 = \square$

c)  $50 \times 7 = \square$

f)  $350 \div 7 = \square$

- 7 Mr Jones buys 12 large jugs.

The total cost of the jugs is £240

How much does each jug cost?

Each jug costs

How did you work this out?



- 8 Complete the number sentences.

a)  $3 \times \square = 210$

c)  $4 \times 90 = \square$

b)  $240 \div 6 = \square$

d)  $120 \div \square = 2$

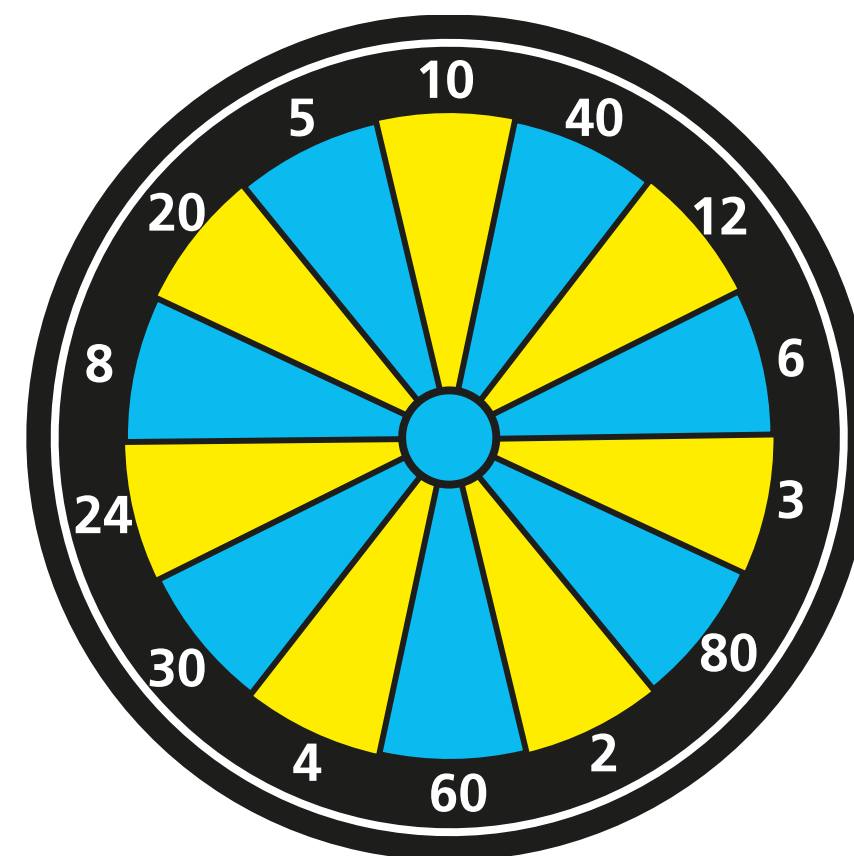
- 9 Huan throws two darts at the dartboard.

He multiplies the numbers he hits together.

Huan's score is 240

What two numbers could the darts have landed in?

and

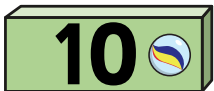









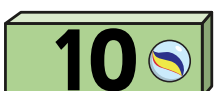






How many different answers can you find?



# Multiply 2-digits by 1-digit (1)

- 1 Ron, Eva and Mo each have 23 marbles.

Tens	Ones
 	  
 	  
 	  

How many marbles are there in total?

$$3 \times 3 \text{ ones} = \square$$

$$3 \times 2 \text{ tens} = \square$$













$$\square + \square = \square$$

$$3 \times 23 = \square$$

There are  $\square$  marbles in total.



- 2 Use the place value chart to work out  $2 \times 24$   
Complete the multiplication sentences.















Tens	Ones
 	   
 	   

$$2 \times 4 = \square$$

$$2 \times 20 = \square$$

$$2 \times 24 = \square$$

- 3 Annie works out  $43 \times 2 = 86$

Tens	Ones
   	  
   	  

		T	O	
		4	3	
	x		2	
		8	6	

Talk about Annie's methods with a partner.

What is the same? What is different?

- 4 Complete the multiplications.

a)

		T	O	
		2	4	
	x		2	

b)

		T	O	
		4	4	
	x		2	



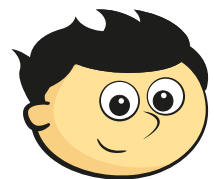
c)  $31 \times 3$


d)  $42 \times 2$


Compare answers with a partner.



- 5 Jack is trying to work out  $34 \times 2$  using the column method.



I'm not sure what to do.

			2	
	$\times$	3	4	

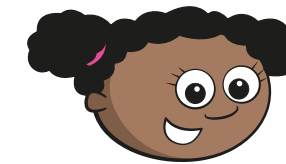
Show how Jack could improve his column method and work out the answer.


- 6 One toaster costs £32  
How much do 3 toasters cost?



--

- 7 Whitney has multiplied a 2-digit number by a 1-digit number.



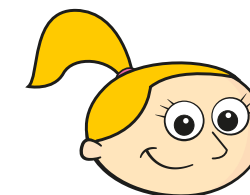
I had to do  $30 + 9 = 39$  to get my answer.

What numbers is Whitney multiplying?

Fill in the missing digits.

	$\times$			
		3	9	

- 8 Filip used the column method to work out  $41 \times 2$



I can work this multiplication out in my head.

		4	1	
	$\times$		2	

- a) How do you think Eva will work this out in her head?  
b) Tick the multiplications that you can work out in your head.

$4 \times 22$

$3 \times 23$

$3 \times 33$

$12 \times 4$

$3 \times 32$

$4 \times 20$



# Multiply 2-digits by 1-digit (2)

- 1 There are 23 marbles in a jar.  
There are 5 jars.



Tens	Ones

How many marbles are there in total?

$$5 \times 3 \text{ ones} = \square$$

$$5 \times 2 \text{ tens} = \square$$

$$\square + \square = \square$$

$$5 \times 23 = \square$$

There are  $\square$  marbles in total.

- 2 Work out  $4 \times 15$

Tens	Ones

$$4 \times 5 = \square$$

$$4 \times 10 = \square$$

$$4 \times 15 = \square$$

- 3 Complete the multiplications.

a)  $4 \times 24 = \square$

b)  $3 \times 17 = \square$

c)  $3 \times 25 = \square$

d)  $34 \times 4 = \square$

- 4 Complete the column multiplications.

Tens	Ones

		T	O
		2	4
	x		3

Tens	Ones
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1
10 10 10	1 1 1 1 1

			T	O	
			3	5	
	x			4	

5 Work out the multiplications.

a)  $25 \times 5$

			T	O	
			2	5	
	x			5	

c)  $5 \times 26$


b)  $35 \times 6$

			T	O	
			3	5	
	x			6	

d)  $4 \times 36$




6 Tommy works out  $37 \times 2$

			T	O	
			3	7	
	x			2	
			6	1	4


What mistake has Tommy made? Work out the correct answer.

7 Find the missing numbers.

			2	2	
	x				
			8	8	

				1	
	x				
			1	2	4

8 Here are some digit cards. 1 2 3 4 5 8

a) Use the digit cards to create a multiplication and work out the answer.

$$\square \square \times \square = \square$$

b) Work with a partner to find calculations that have:

- an odd product
- an even product
- an exchange in the ones column
- an exchange in the ones and tens columns.