

- 1) The time machine has broken down. We need a 3-digit code to make it work again. The code is the second digit of each product.



Write the multiplication calculation which is represented by the place value counters and find the product to help work out the code.



A)

Thousands	Hundreds	Tens	Ones
●	●	● ● ●	● ●
●	●	● ● ●	● ●
●	●	● ● ●	● ●

b)

Thousands	Hundreds	Tens	Ones
● ●		● ● ● ●	● ●
● ●		● ● ● ●	● ●
● ●		● ● ● ●	● ●
● ●		● ● ● ●	● ●

c)

Thousands	Hundreds	Tens	Ones
● ● ●	● ● ● ● ● ● ● ●	●	● ● ●
● ● ●	● ● ● ● ● ● ● ●	●	● ● ●
● ● ●	● ● ● ● ● ● ● ●	●	● ● ●
● ● ●	● ● ● ● ● ● ● ●	●	● ● ●
● ● ●	● ● ● ● ● ● ● ●	●	● ● ●
● ● ●	● ● ● ● ● ● ● ●	●	● ● ●

What is the 3-digit code?

- 2) Write two different word problems which could be solved by the calculation represented by the place value counters.

Thousands	Hundreds	Tens	Ones
● ●	●		● ● ●
● ●	●		● ● ●
● ●	●		● ● ●
● ●	●		● ● ●

Note:

To find the code, you need to work out the **PRODUCT** (this means the answer to a multiplication problem) to each of the questions a – c.

Once you have the answers, look at the **SECOND DIGIT** of each answer and put them together – this will make up your 3 digit code.

An example word problem:

On a fruit farm, there were 4 containers ready to be taken to market. Each container was filled with 2,103 pieces of fruit.

How many pieces of fruit altogether were ready to be sold at the market?

1) Harry has been practising short multiplication. Identify and explain the errors he has made.



A)

2	3	1	4
x			3
6	9	3	12



b)

	3	0	4	3
x				4
1	2	1	6	2
		1		

c)

	5	2	0	6
x				6
3	1	2	9	6
	1		3	

d)

	4	3	1	0
x				8
	3	4	4	8
		2		

