Multiplying by 10, 100 and 1,000

1 Draw counters to show each number multiplied by 10.

a)

T	O	•	Tth
	○	•	○○○

→

T	O	•	Tth
○	○○○	•	

1·3 × 10 = 13

b)

T	O	•	Tth	Hth
	○○○	•		○○○

→

T	O	•	Tth
○○○		•	○○○

3·03 × 10 = 30.3

2 a) Which of these represents the answer to 10·08 multiplied by 100?
Tick your answer.

Th	H	T	O
1	0	0	8

☑

Th	H	T	O
1	0	8	0

☐

H	T	O	•	Tth
1	0	0	•	8

☐

b) Which of these represents the answer to 8·103 multiplied by 1,000?
Tick your answer.

Th	H	T	O
8	1	3	0

☐

Th	H	T	O
8	1	0	3

☑

H	T	O	•	Tth
8	1	0	•	3

☐

c) What is 0·012 multiplied by 1,000?

0·012 × 1,000 = 12

3 Complete these calculations.

a) 1·1 × 10 = 11

1·2 × 10 = 12

1·02 × 10 = 10.2

102 = 1·02 × 100

b) 9990 = 99·9 × 100

99990 = 999·9 × 100

0·999 × 100 = 99

9·999 × 1,000 = 9999

c) 2·5 × 10 = 25

2·5 × 20 = 50

2·5 × 200 = 500

2·5 × 2,000 = 5000

4 a) A builder orders 400 bricks. One brick costs £1·50. What will be the total cost of the order?

£1·50 × 4 = £6.00

6 × 100 = 600

The total cost of the order will be £600.

b) There are 500 of each type of brick.
What is the total mass of all the bricks?

A

0·8 kg

400kg

B

1·2 kg

600kg

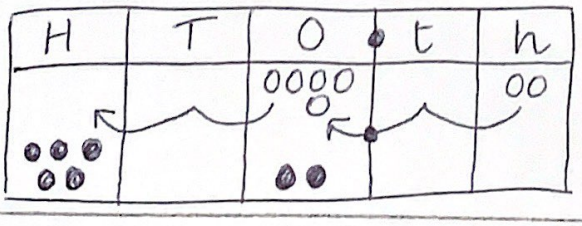
0.8 × 100 = 80
80 × 5 = 400

1·2 × 100 = 120
120 × 5 = 600

400 + 600 = 1000

The total mass of all the bricks is 1000kg.

5 Bella says that when you multiply 5·02 by 100, you get 520. Explain her mistake using a place value grid.



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