

## Arithmetic

1.  $5,309 \times 9$

2.  $\frac{5}{6}$  of 360

3.  $14.4 - 3.78$

4.  $3,670 \div 5$

## Practice: Multiply Decimals by 10, 100, 1000

5. Recap: Explain how to multiply 4.1 by 10, 100 and 1,000. 

6. Multiply by 10.

a. 6.4

b. 2.45

c. 3.647

7. Multiply by 100.

a. 6.4

b. 2.45

c. 3.647

8. Multiply by 100.

a. 0.726

b. 3.08

c. 2.9

9. Multiply by 1,000.

a. 0.726

b. 3.08

c. 2.9

10. Look at the highlighted digit. Do I need to write it in this number? Explain your answer. 

5.1340

11. Multiply by 1,000.

a. 24.45

b. 6.3

c. 1.005

12. Multiply by 10.

a. 24.45

b. 6.3

c. 1.005

13.  $9.001 \times 1,000 = 91$  

Is this correct? Explain your answer.

Challenge

14. Complete the calculations.

a.  $1.4 \times 10 = \boxed{\phantom{000}} \times 100$

b.  $5.23 \times 1,000 = \boxed{\phantom{000}} \times 10$

c.  $3.718 \times 100 = \boxed{\phantom{000}} \times 1,000$

Create two completed number sentences of your own following the pattern above.



You might want to talk to an adult



Spot the mistake

## Answers

Q no.	Question	Answer
1	$5,309 \times 9$	47,781
2	$\frac{5}{6}$ of 360	300
3	$14.4 - 3.78$	10.62
4	$3,670 \div 5$	734
5	Explain how to multiply 4.1 by 10, 100 and 1,000.	Pupils will have a range of ways to explain this process, accept any way that accurately describes multiplying by powers of ten. Pupils may discuss moving the digits to the left one/ two/ three places and filling appropriate empty columns with place holders. They should understand that the digits increase in value which is why they move to the left. It is important that pupils understand they do not move the decimal point.
6	Multiply by 10.	a. 64, b. 24.5, c. 36.47
7	Multiply by 100.	Note that the numbers are the same as Q6 deliberately. Pupils can use these answers to calculate multiplying by 100. a. 640, b. 245, c. 364.7
8	Multiply by 100.	a. 72.6, b. 308, c. 290
9	Multiply by 1,000.	Note that the numbers are the same as Q8 deliberately. Pupils can use these answers to calculate multiplying by 1,000. a. 726, b. 3,080, c. 2,900
10	Look at the highlighted digit. Do I need to write it in this number? Explain your answer.	The zero in this question is unnecessary, as such it does not need to be written. The number 5.134 has the same value as 5.1340.
11	Multiply by 1,000.	a. 24,450, b. 6,300, c. 1,005
12	Multiply by 10.	Note that the numbers are the same as Q11 deliberately. Pupils can use these answers to calculate multiplying by 10. a. 244.5, b. 63, c. 10.05
13	Is this correct? Explain your answer.	This is incorrect. The answer has removed the zeros between the 9 and the 1. This demonstrates a misunderstanding in the importance of zero as a place holder within a number.
14	Complete the calculations. a. $1.4 \times 10 = ? \times 100$ b. $5.23 \times 1,000 = ? \times 10$ c. $3.718 \times 100 = ? \times 1,000$ Create two completed number sentences of your own following the pattern above.	a. 0.14, b. 523, c. 0.3718 Pupil's own number sentences should include decimals multiplied by 10, 100 or 1,000 and be balanced on both sides.