L.O. To multiply and divide measures by 10, 100 and 1000.

Remember: when we are multiplying by 10, 100 and 1000, we DO NOT need the method of short multiplication.

Remember: when we are dividing by 10, 100 and 1000, we DO NOT need the method of bus stop division.

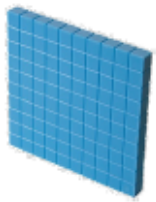
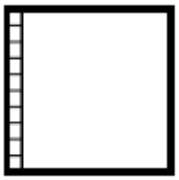
To calculate these questions, we need to think about PLACE VALUE and moving the digits up and down the place value columns.

Please watch this clip to revise our work on multiplying and dividing by 10, 100 and 1000.

BBC Bitesize Multiply and Divide by 10 100 1000

I would like you to complete Section A below, thinking carefully about the direction of moving the digits up the columns (when multiplying) to make your answer bigger and moving the digits down the columns (when dividing) to make your answer smaller.

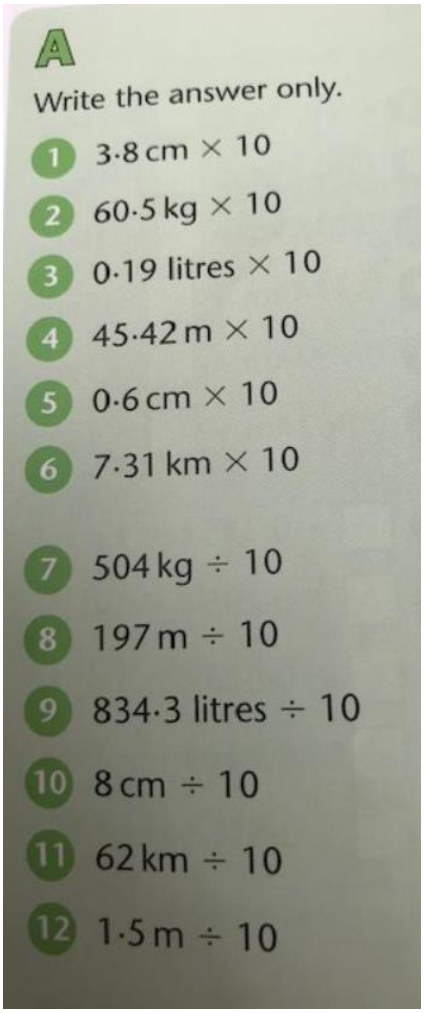
Please use the place value chart below if you need to, to help you work out the answers.

 Hundreds	 Tens	 Ones	 Decimal Point	 tenths	 hundredths	 thousandths

Section A - Please remember to include the units of measure in your answer.

1. 3.8cm x 10 = 38cm
   (x 10 tells us we need to move up the place value columns one place)

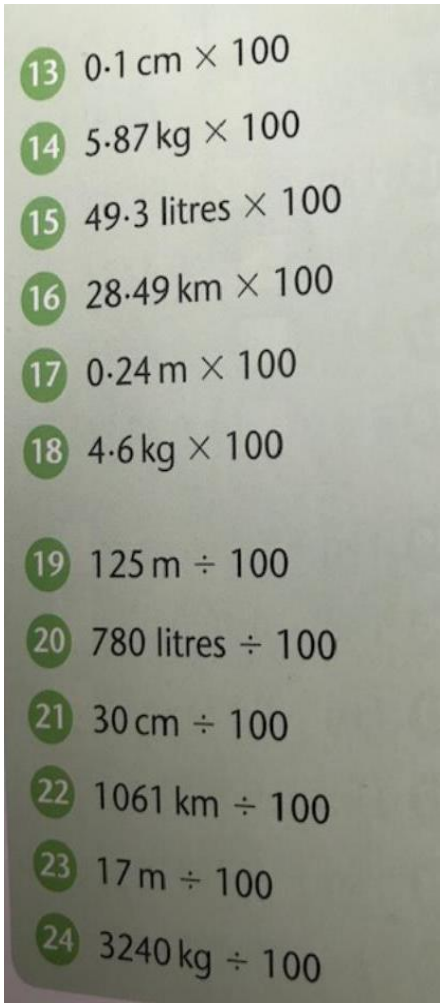
13. 0.1cm x 100 = 10cm
   (x 100 tells us we need to move up the place value columns two places)



A

Write the answer only.

1. 3·8 cm × 10
2. 60·5 kg × 10
3. 0·19 litres × 10
4. 45·42 m × 10
5. 0·6 cm × 10
6. 7·31 km × 10
7. 504 kg ÷ 10
8. 197 m ÷ 10
9. 834·3 litres ÷ 10
10. 8 cm ÷ 10
11. 62 km ÷ 10
12. 1·5 m ÷ 10



13. 0·1 cm × 100
14. 5·87 kg × 100
15. 49·3 litres × 100
16. 28·49 km × 100
17. 0·24 m × 100
18. 4·6 kg × 100
19. 125 m ÷ 100
20. 780 litres ÷ 100
21. 30 cm ÷ 100
22. 1061 km ÷ 100
23. 17 m ÷ 100
24. 3240 kg ÷ 100

Answers – Section A

1. 38 cm
2. 605 kg
3. 1.9 litres
4. 454.2 m
5. 6 cm
6. 73.1 km
7. 50.4 kg
8. 19.7 m
9. 83.43 litres
10. 0.8 cm
11. 6.2 km
12. 0.15 m
13. 10 cm
14. 587 kg
15. 4930 litres
16. 2849 km
17. 24 m
18. 460 kg
19. 1.25 m
20. 7.80 litres
21. 0.30 cm
22. 10.61 km
23. 0.17 m
24. 32.40 kg

If you feel confident and you would like to attempt the extension task, move on to Section B.

Section B

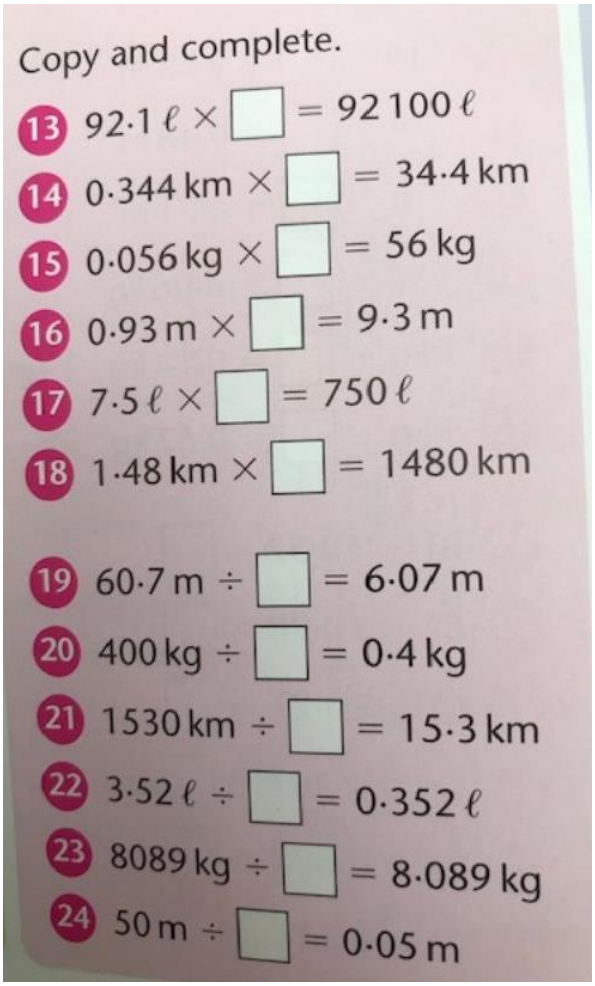
1. 0.169 litres x 1000 = 169 litres
   (x 1000 tells us we need to move up the place value columns three places)

13. 92.1 litres x [ ] = 92,100 litres
    (We need to work out how many places 92.1 has moved up the columns to make 92,100 ……it has moved up the place value columns three places…….therefore we must have x 1000)
    92.1 litres x [1000] = 92,100 litres

B

Write the answer only.

1. 0·169 litres × 1000
2. 0·002 m × 10
3. 7·6 km × 1000
4. 0·013 kg × 100
5. 3·957 litres × 10
6. 0·04 m × 1000
7. 28 km ÷ 100
8. 810 kg ÷ 1000
9. 0·05 litres ÷ 10
10. 3200 m ÷ 1000
11. 185·9 km ÷ 100
12. 27 kg ÷ 1000



Copy and complete.

13. 92·1 ℓ × ☐ = 92 100 ℓ
14. 0·344 km × ☐ = 34·4 km
15. 0·056 kg × ☐ = 56 kg
16. 0·93 m × ☐ = 9·3 m
17. 7·5 ℓ × ☐ = 750 ℓ
18. 1·48 km × ☐ = 1480 km
19. 60·7 m ÷ ☐ = 6·07 m
20. 400 kg ÷ ☐ = 0·4 kg
21. 1530 km ÷ ☐ = 15·3 km
22. 3·52 ℓ ÷ ☐ = 0·352 ℓ
23. 8089 kg ÷ ☐ = 8·089 kg
24. 50 m ÷ ☐ = 0·05 m