

# Varied Fluency

## Step 2: Convert Metric Measures

### National Curriculum Objectives:

Mathematics Year 6: (6M5) [Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places](#)

Mathematics Year 6: (6M9) [Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate](#)

### Differentiation:

**Developing** Questions to support converting metric measures of length, mass and capacity. Using multiples of 5 with up to 1 decimal place (0.5).

**Expected** Questions to support converting metric measures of length, mass and capacity. Using any number with up to 3 decimal places. Sometimes includes zero as a place holder.

**Greater Depth** Questions to support converting metric measures of length, mass and capacity. Using any number with up to 3 decimal places. Includes a number of zeros as place holders. Including fractions and percentages to convert measurements.

More Year 6 [Converting Units](#) resources.

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## Convert Metric Measures

1a. Complete the following statement.

3kg is equal to \_\_\_\_g.



VF

## Convert Metric Measures

1b. Complete the following statement.

1.5m is equal to \_\_\_\_cm.



VF

2a. Put these measurements in order from smallest to largest.

100cm

1.5m

150mm

1.5cm



VF

2b. Put these measurements in order from largest to smallest.

95g

325g

9.5kg

9,000g



VF

3a. Complete the missing operation and measurement to convert between kg and g.

1.5kg  = \_\_\_\_\_g



VF

3b. Complete the missing operation and measurement to convert between cm and mm.

10.5cm  = \_\_\_\_\_mm



VF

4a. Find and correct the errors in these conversions:

A. 150cm = 15m

B. 50m = 5,000cm

C. 25mm = 2.5cm

D. 1L = 100ml



VF

4b. Find and correct the errors in these conversions:

A. 500g = 5kg

B. 2,200ml = 22L

C. 1.5kg = 1,500g

D. 50cm = 0.5m



VF

## Convert Metric Measures

5a. Complete the following statement.

2.52L is equal to \_\_\_\_ ml.



VF

## Convert Metric Measures

5b. Complete the following statement.

3.04kg is equal to \_\_\_\_ g.



VF

6a. Put these measurements in order from smallest to largest.

1.5m

176cm

1,605mm

1m

251cm

1.454mm



VF

6b. Put these measurements in order from largest to smallest.

1.27kg

1,002g

125g

1kg

0.25kg

500g



VF

7a. Complete the missing operation and measurement to convert between g and kg.

539g

= \_\_\_\_ kg



VF

7b. Complete the missing operation and measurement to convert between L and ml.

3.2L

= \_\_\_\_ ml



VF

8a. Find and correct the errors in these conversions:

A. 1,510m = 151km

B. 1.65kg = 1,650g

C. 72cm = 7.2mm

D. 7,505mm = 7.505m



VF

8b. Find and correct the errors in these conversions:

A. 320mm = 32cm

B. 1,018cm = 10.18m

C. 1.33kg = 133g

D. 2,055g = 2.55kg



VF

## Convert Metric Measures

9a. Complete the following statement.

26% of 1.239kg is equal to \_\_\_\_g.



VF

## Convert Metric Measures

9b. Complete the following statement.

38% of 675cm is equal to \_\_\_\_m.



VF

10a. Put these measurements in order from smallest to largest.

0.008m

0.63cm

$\frac{1}{5}$  of 10.4m

8,003mm

50% of 1.46mm

81.08cm



VF

10b. Put these measurements in order from largest to smallest.

10% of 0.56ml

0.001L

0.024L

0.206ml

$\frac{1}{4}$  of 0.18L

0.203L



VF

11a. Complete the missing operation and measurement to convert between m and mm.

1.104m  = \_\_\_\_mm



VF

11b. Complete the missing operation and measurement to convert between L and ml.

60.002L  = \_\_\_\_ml



VF

12a. Find and correct the errors in these conversions:

A. 563m = 0.563km

B. 23.56mm = 2,356cm

C. 548,000mm = 5,480m

D. 800.006cm = 8,000.06mm



VF

12b. Find and correct the errors in these conversions:

A. 3.546L = 354.6ml

B. 2ml = 0.02L

C. 0.003L = 3ml

D. 598ml = 0.598L



VF

**Varied Fluency**  
**Convert Metric Measures**

**Developing**

- 1a. 3,000g  
2a. 1.5cm; 150mm; 100cm, 1.5m  
3a.  $\times 1,000$ ; 1,500  
4a. A. 150cm = 1.5m; D. 1L = 1,000ml

**Expected**

- 5a. 2,520ml  
6a. 1.454mm; 251cm; 1m; 1.5m; 1,605mm;  
176cm  
7a.  $\div 1,000$ ; 0.539  
8a. A. 1,550m = 1.51km; C. 72cm = 720mm

**Greater Depth**

- 9a. 322.14g  
10a. 50 % of 1.46mm (0.73mm); 0.63cm;  
0.008m; 81.08cm;  $\frac{1}{5}$  of 10.4m (2.08m);  
8,003mm  
11a.  $\times 1,000$ ; 1,104  
12a. B. 23.56mm = 2.356cm; C. 548,000mm  
= 548m

**Varied Fluency**  
**Convert Metric Measures**

**Developing**

- 1b. 150cm  
2b. 9.5kg; 9,000g; 325g; 95g  
3b.  $\times 10$ ; 105  
4b. A. 500g = 0.5kg; B. 2,200ml = 2.2L

**Expected**

- 5b. 3,040g  
6b. 1.27kg; 1,002g; 1kg; 500g; 0.25kg;  
125g  
7b.  $\times 1,000$ ; 3,200  
8b. C. 1.33kg = 1,330g; D. 2,055g =  
2.055kg

**Greater Depth**

- 9b. 2.565m  
10b. 0.203L;  $\frac{1}{4}$  of 0.18L (0.045L); 0.024L;  
0.001L; 0.206ml; 10% of 0.56ml (0.056ml)  
11b.  $\times 1,000$ ; 60,002  
12b. A. 3.546L = 3,546ml; B. 2ml = 0.002L