

5/16/2016 Introduction to Measuring - worksheet Name: Solutions

1. The organizers of a marathon wish to place markers at intervals of two miles to show the runners how far they have gone. Each marker will be in both miles and kilometres. Using 1 mile = 1.6km (1 d.p.), complete the table below

| Miles | Km (to 1 d.p.) | Miles | Km (to 1 d.p.) |
|-------|----------------|-------|----------------|
| 0 | 0.0 | 10 | 16.0 |
| 2 | 3.2 | 12 | 19.2 |
| 4 | 6.4 | 18 | 28.8 |

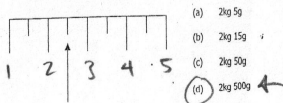
2. Measure these lines in mm then convert your answers to cm:

(a) $29.1 \text{ mm} = 2.91 \text{ cm}$

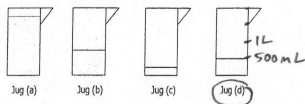
(b) $12.7 \text{ mm} = 1.27 \text{ cm}$
 $30.5 \text{ mm} = 3.05 \text{ cm}$

(c) $7.2 \text{ mm} = 0.72 \text{ cm}$
 (d) $35.4 \text{ mm} = 3.54 \text{ cm}$

3. The scale below measures weights from 1kg to 5kg. What weight is the arrow pointing at?



4. The diagram shows four 2 litre jugs with coffee in them. Which one contains 500ml?



5. A different jug holds 1litre when full, how many millilitres will it hold when it is three-quarters full?

- (a) 25ml (b) 250ml (c) 750ml (d) 75ml

6. How much liquid could 3/5 of the jugs from Q4 hold?

- (a) 350 litres (b) 350ml (c) 3.5 litres (d) 35ml

Solutions

METRIC SYSTEM WORK SHEET

| | |
|---|--|
| 1 km = 1000000 mm | 0.0102 mm = 0.0000102 m |
| 1 m = 100 cm | 9.7 cm = 97 mm |
| 1 cm = 10 mm | 16 cm = 0.16 m |
| 1 km = 1000 m | 47 km = 47000 m |
| 1m = 1000 mm | 4.15 mm = 0.00415 m |
| 1 km = 100000 cm | 0.0042 km = 420 cm |
| 16 m = 16000 mm | 68.3 mm = 0.0000683 km |
| 18.7 cm = 0.000187 km | 0.014 km = 0.0014 cm |
| 0.006 km = 6000 mm | 313 m = 313000 mm |
| 912.65 cm = 9126.5 mm | 3 000 cm = 30 m |
| 194.3 m = 0.1943 km | 29.1 cm = 0.000291 km |
| 16.58 km = 16580000 mm | 0.00087 mm = 0.000087 cm |
| 1 cm ² = 100 mm ² | 1 421 cm ² = 0.01421 km ² |
| 1 m ² = 10000 cm ² | 38.4 mm ² = 0.0000384 m ² |
| 1 km ² = 10000000000 cm ² | 15.6 m ² = 156000 cm ² |
| 1 mm ² = 0.000001 m ² | 0.0047 km ² = 4700000000 mm ² |
| 1 cm ² = 0.0001 m ² | 16.1 mm ² = 0.161 cm ² |
| 2.4 m ² = 2400000 mm ² | 3.4 x 10 ⁴ mm ² = 0.034 m ² |
| 1 L = 1000 mL | 1 mm ³ = 0.001 cm ³ |
| 15 mL = 15 cm ³ | 78 cm ³ = 0.078 L |
| 3.3 L = 3300 mL | 1 451 mL = 1.451 L |
| 44.5 mL = 0.0445 L | 22.3 mm ³ = 0.0000223 cm ³ |
| 167.3 cm ³ = 0.1673 L | 1.56 x 10 ⁴ cm ³ = 0.0156 m ³ |
| 1 m ³ = 1000 000 cm ³ | 15600 0.0086 m ³ = 8600000 mm ³ |
| 1 kg = 1000 g | 34.8 g = 0.0348 kg |
| 1 631 g = 1.631 kg | 0.0065 g = 6.5 mg |
| 14 300 g = 0.014300 t | 0.0053 kg = 0.0000053 t |
| 25 450 kg = 25450 000 g | 78.3 mg = 0.0000783 kg |
| 6.8 x 10 ⁵ mg = 0.00068 t | 2.61 t = 2610 000 g |
| 680000 | |