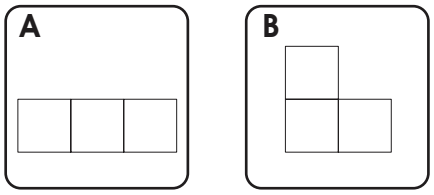
Answers to **5:MG01** to **5:MG71** can be found in **5:MG00D**, **5:MG00E** and **5:MG00F**, within the Level Contents of this section.

Answers to Level 5 Volume and Capacity

5:01

1 **A:** 6 cm^3 **B:** 9 cm^3

2



3 **a** 125 mL **b** 125 mL **c** 50 mL **d** 125 mL

5:02

1 **a** 18 cm^3 **b** 8 cm^3 **c** 24 cm^3
d 5 cm^3 **e** 14 cm^3 **f** 20 cm^3

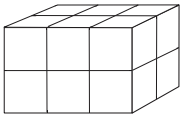
2 Estimates will vary.
a 4 cm^3 **b** 6 cm^3 **c** 12 cm^3 **d** 12 cm^3

3 **a** Length = 4 cm, Breadth = 2 cm, Height = 1 cm
b 8 (cm^3 blocks)
c It should hold 8. **d** 8 cm^3

5:03

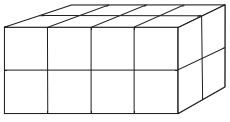
1 **a** 6 cm^3, 6 cm^3, Volume = 6 cm^3 + 6 cm^3 = 12 cm^3
b Volume = 12 cm^3 + 12 cm^3 = 24 cm^3
c 3 cm^3, 3 cm^3, 3 cm^3, Volume = 3 × 3 cm^3 = 9 cm^3
d Volume = 12 cm^3 + 12 cm^3 + 12 cm^3 = 36 cm^3

2 **a**



Volume = 6 cm^3 + 6 cm^3
= 12 cm^3

b



Volume = 8 cm^3 + 8 cm^3
= 16 cm^3

3 **a** 15 cm^3 **b** 12 cm^3 **c** 32 cm^3 **d** 54 cm^3

5:04

1 **a** Volume = 4 cm × 3 cm × 3 cm = 36 cm^3
b Volume = 6 cm × 4 cm × 2 cm = 48 cm^3
c Volume = 6 cm × 5 cm × 4 cm = 120 cm^3
d Volume = 6 cm × 2 cm × 3 cm = 36 cm^3
e Volume = 10 cm × 10 cm × 6 cm = 600 cm^3

2 **a** 42 cm^3 **b** 30 m^3 **c** 64 cm^3
d 36 m^3 **e** 45 cm^3 **f** 80 m^3
g 120 cm^3 **h** 770 m^3

5:04 Consolidation

1 **a** 2 cm × 2 cm × 2 cm = 8 cm^3
b 4 cm × 2 cm × 2 cm = 16 cm^3
c 3 cm × 3 cm × 2 cm = 18 cm^3
d 3 cm × 1 cm × 3 cm = 9 cm^3
e 3 m × 2 m × 2 m = 12 m^3
f 6 m × 1 m × 1 m = 6 cm^3

2 **a** 70 cm^3 **b** 72 cm^3 **c** 8 m^3 **d** 60 m^3

5:04 Extension

1 **a** 6 cm^3, 6 cm^3, 6 cm^3
Volume = 6 cm^3 + 6 cm^3 + 6 cm^3
= 3 × 6 cm^3 = 18 cm^3
b 2 cm^3, 2 cm^3, 2 cm^3, 2 cm^3, 2 cm^3
Volume = 5 × 2 cm^3 = 10 cm^3

2 **a** Volume = 3 × 2 × 4 cm^3 = 24 cm^3
b Volume = 6 × 2 × 1 cm^3 = 12 cm^3
c Volume = 5 × 2 × 2 cm^3 = 20 cm^3

3 **a** 40 cm^3 **b** 180 cm^3 **c** 48 cm^3
d 24 cm^3 **e** 70 cm^3 **f** 120 cm^3

5:04PT Progress Test answers and records are at the end of this section.

5:05

1 **a** 320 cm^3 **b** 936 cm^3 **c** 84 cm^3 **d** 700 cm^3

2 **a** 8 cm^3 **b** 700 cm^3 **c** 50 cm^3

3 Answers will vary as the items can vary in size.

4 The van, Mick's Cubby and the refrigerator should be circled.

5 **a**

measurement	length	area	volume or capacity
small unit	cm	cm^2	cm^3
larger unit	m	m^2	m^3

b Answers will vary.

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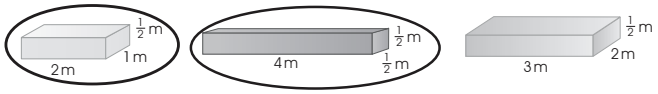
Answers to Level 5 Volume and Capacity

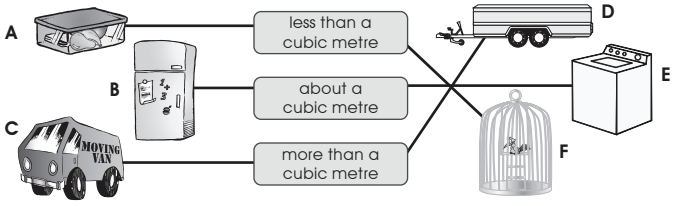
5:06

1 Answers may vary.
a about 1 m^3
b 0 m^3 (about $\frac{1}{4}$ m^3)
c about 3 m^3
d about 400 m^3
e about 3 m^3

2



3 **a**



b smaller
c A, F, E, B, D, C (B and D could reverse.)

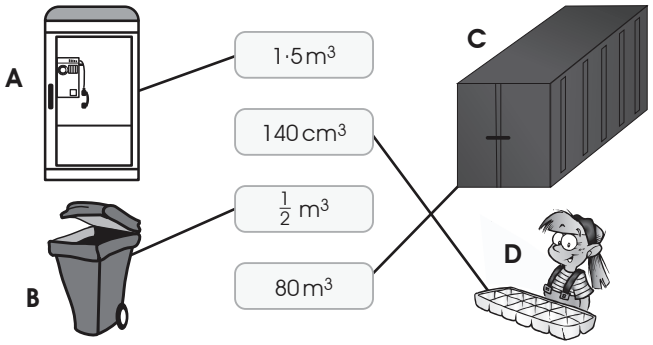
5:07

The order of the capacities in the heading is 3, 4, 2, 1

1 **a** 4 m^3 **b** 10 m^3 **c** 126 m^3 **d** 635 m^3
e 145 m^3 **f** 800 m^3

2 **a** (4) m^3 **b** ($\frac{3}{4}$) m^3 **c** (48) m^3 **d** (90) cm^3

3



The order of the capacity of these containers is D, B, A, C.

Challenge: 4 m^3 + 4 m^3 = 8 m^3

5:08

1 **a** 0·453 L **b** 0·853 L **c** 0·257 L
d 0·142 L **e** 1·500 L (1·5 L) **f** 14·376 L

2 **a** 5·325 kg **b** 10·905 kg **c** 36·221 kg
d 33·026 kg

3 **a** $\frac{3\,654}{1\,000}$ kg or 3·654 kg
b $\frac{45\,600}{1\,000}$ kg or 45·600 kg (or 45·6 kg)

4 **a** 2·841 kg **b** 0·765 kg **c** 3·936 kg
d 45·261 kg **e** 108·250 kg (or 108·25 kg)

5 10·04 kg, 10·246 kg, 10·26 kg, 10·42 kg

6 **A:** 2 L, **B:** 900 mL, **C:** 750 mL
a A **b** C **c** B **d** C

5:09

1 **a** 1 cm^3 **b** 10 cm^3 **c** 1 000 cm^3

2 **a** 18 cm^3, 18 mL **b** 2010 cm^3, 2010 mL = 2·01 L
c 4076 cm^3, 4076 mL, 4 L 76 mL

3

Volume of water displaced	37 mL	214 mL	**510 mL**	850 mL	**1 250 mL**
Volume of object	**37 cm^3**	**214 cm^3**	510 cm^3	**850 cm^3**	1 250 cm^3

4 **a** Answers will vary but the volume of the model should be 8 cm^3.
b 8 cm^3

5:10

1 **a** Water displaced = 10 mL, Volume = 10 cm^3
b Water displaced = 5 mL, Volume = 5 cm^3
c Water displaced = 1 mL, Volume = 1 cm^3

2 **a** Water displaced = 100 mL, Volume = 100 cm^3
b Water displaced = 50 mL, Volume = 50 cm^3

3 **a** Water displaced = 0 L 500 mL,
Volume = 500 cm^3
b Water displaced = 1 L 500 mL,
Volume = 1 500 cm^3
c Water displaced = 1 L 0 mL, Volume = 1 000 cm^3

4 Answers will vary.

5:10PT Progress Test answers and records are at the end of this section.

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Answers to Level 5 Volume and Capacity

Assessment for the whole of Level 5

Test

1 **a** 11 cm^3 **b** 16 cm^3

2 **a** $v = 6 \times 4 \times 2 = 48\,cm^3$

b $v = 2 \times 1 \times 5 = 10\,m^3$

3 **a** 1 m^3 **b** 60 cm^3 **c** 10 m^3

4 1 cm^3 displaces **1** mL of water.

10 cm^3 displaces **10** mL of water.

1000 cm^3 displaces **1000** mL of water.

5 water displaced = **200** mL

volume = **200** cm^3

Volume and Capacity answers to **Maths Builder 5** can be found in the Level Contents as

5:MG00D Answers: **5:MG01 - 5:MG15**
5:MG00E Answers: **5:MG16 - 5:MG39C**
5:MG00F Answers: **5:MG40 - 5:MG71**

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5:04 PTA Level 5, Progress test 1, Answers

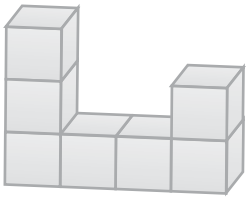
(Volume & Capacity)

1 : having difficulty
2 : developing understanding
3 : progressing well

For treatment, go to:

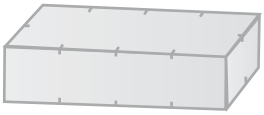
1 Count these cubic centimetre blocks to find the volume of each model.

a



Volume = 7 cm^3

b



Volume = 8 cm^3

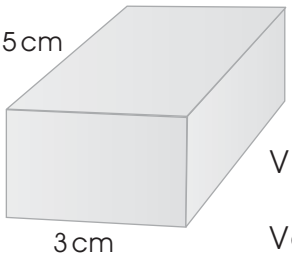
5:02, 5:03

Also:
5:01, 5:04C

1 2 3

2 Use the formula, Volume = length × breadth × height to find the volume of each prism.

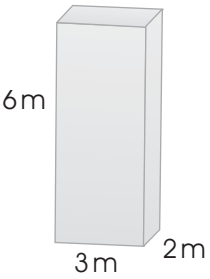
a



V = 5 × 3 × 1

Volume = 15 cm^3

b



V = 6 × 3 × 2

Volume = 36 m^3

5:04

5:04C

1 2 3

Maths Builder Year 5
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Name: _____ Class: _____

Progress Test Record (Print this sheet to keep a record of remedial treatment.)

- The student should complete the test and then have it marked.
- Show where each error was made by placing a stroke under the question number.
- Use the worksheets listed to review the concept.
- Make the stroke into a cross when the error has been treated.
- When the review is complete, retest the questions where errors occurred.

5:04 PTR Volume and capacity, Level 5

Question	1	2													
Errors ⁄															
Colour the worksheets completed.	5:02	5:04													
	5:03	5:04C													
	5:01														
	5:04C														
Retest															

Comments: _____

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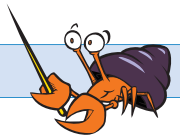
Level 5, Progress test 2, Answers

(Volume & Capacity)



1 : having difficulty
2 : developing understanding
3 : progressing well

For treatment, go to:

1 Write the unit (m^3 or cm^3) that has been used to measure the volume or capacity of each object.

a

10 cm^3

b

500 cm^3

c

3 m^3

5:05
5:06
5:07

1 2 3

2 Complete:

2 cm^3 displaces **2** mL of water.

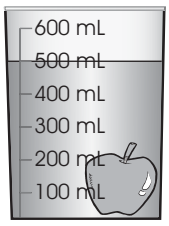
20 cm^3 displaces **20** mL of water.

2 000 cm^3 displaces **2 000** mL of water.

5:09

1 2 3

3 Find the volume of the apple placed in 400 mL of water.



Water displaced = **100** mL

Volume = **100** cm^3

5:10

Also:
5:08

1 2 3

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Name: _____ Class: _____

Progress Test Record (Print this sheet to keep a record of remedial treatment.)

- The student should complete the test and then have it marked.
- Show where each error was made by placing a stroke under the question number.
- Use the worksheets listed to review the concept.
- Make the stroke into a cross when the error has been treated.
- When the review is complete, retest the questions where errors occurred.

5:10 PTR Volume and capacity, Level 5

Question	1	2	3											
Errors ⁄														
Colour the worksheets completed.	5:05	5:09	5:10											
	5:06		5:08											
	5:07													
Retest														

Comments: _____

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