Stage 6 Cambridge Primary Mathematics Practice Worksheet

Tuesday 18 August 2026

Syllabus Objective: 6Gg.05 — Capacity and Volume

TWM Focus: TWM.03 (Conjecturing) & TWM.08 (Improving)

Time Allowed: 30 Minutes | **Total Marks:** 20 Marks

Section A: Key Concepts & Vocabulary

Question 1 [2 Marks]

Match each mathematical term to its correct definition by writing the corresponding letter (**A** or **B**):

Term	Letter	Definition
(a) Capacity	_____ [1]	**A.** The amount of 3D space an object or liquid actually occupies.
(b) Volume	_____ [1]	**B.** The maximum total amount of liquid or space a container can hold.

Question 2 [2 Marks]

A large plastic bucket has a total internal space of 10 litres. Tariro pours 4 litres of water into it.

(a) What is the **capacity** of the bucket? [1]

Answer: _____ l

(b) What is the **volume** of water in the bucket? [1]

Answer: _____ l

Section B: Unit Conversions & Scale Reading

Question 3 [2 Marks]

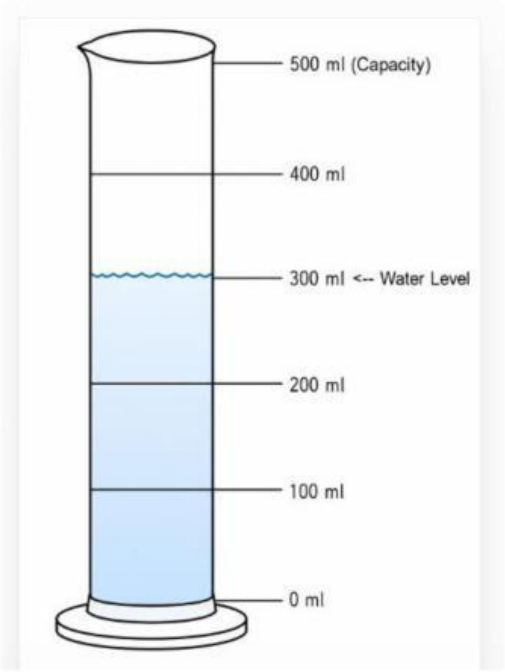
Complete the equivalent metric volume and capacity conversions below:

(a) 2.5 litres = _____ ml [1]

(b) 750 cm^3 = _____ ml = _____ litres [1]

Question 4 [2 Marks]

Study the measuring cylinder shown below.



(a) What is the total **capacity** of the measuring cylinder? [1]

Answer: _____ ml

(b) What is the current **volume** of water in the measuring cylinder? Express your answer in **litres**.

[1]

Answer: _____ l

Section C: Thinking and Working Mathematically (Conjecturing & Improving)

Question 5 *(TWM.03 Conjecturing)* [2 Marks]

An empty fish tank measures 40 cm long, 20 cm wide, and 30 cm high.

Its calculated maximum internal space is $24\,000$ cm^3.

(a) Make a conjecture (mathematical prediction): What is the **capacity** of the fish tank in **litres**?

[1]

Conjecture: Capacity = _____ l

(b) If the tank is filled to **three-quarters** ($\frac{3}{4}$) of its height with water, what is the **volume** of water in the tank? [1]

Working: _____

Answer: Volume = _____ l

Question 6 *(TWM.08 Improving)* [2 Marks]

Kundai is estimating how many 250 ml plastic cups are needed to fill a jug.

- **First Conjecture:** Kundai estimates the jug holds 10 **cups** (2500 ml).
- **Test:** She pours water in and discovers that 6 **cups** fill the jug completely to the top line.

(a) What is the actual **capacity** of the jug in **litres**? [1]

Answer: _____ l

(b) *(Improving)* Kundai now has a larger bucket. She estimates it holds 4 times the volume of the jug. Based on her updated testing knowledge, how many 250 ml cups should she conjecture the bucket holds? [1]

Answer: _____ cups

Section D: Misconceptions, Problem Solving & Extension

Question 7 *(Misconception Check)* [2 Marks]

Farai states: *"My water bottle is empty, so its capacity is currently* 0 ml."

Is Farai correct? Explain your answer using the definitions of capacity and volume. [2]

Question 8 [2 Marks]

A container with a **capacity of** 2 litres currently holds 650 ml of water.

How much **more water** (in ml) needs to be added to reach its full capacity?

Show your working out. [2]

Working: _____

Answer: _____ ml

Question 9 [2 Marks]

Look at the three containers listed below:

- **Container A:** Capacity = 1.2 l, currently contains 1200 ml of water.
- **Container B:** Capacity = 2.0 l, currently contains 1500 ml of water.
- **Container C:** Capacity = 0.8 l, currently contains 0 ml of water.

(a) Which container is completely full to its capacity? [1]

Answer: Container _____

(b) Which container has a volume of liquid equal to 1.5 litres? [1]

Answer: Container _____

Question 10 ***(Multi-Step Word Problem)*** **[2 Marks]**

A teacher has a large dispenser with a **capacity of** 5 litres.

It is filled with 3.8 litres of juice.

During a school break, 8 learners each drink a glass containing 200 ml of juice from the dispenser.

(a) What is the remaining **volume** of juice in the dispenser (in ml)? [1]

Working: _____

Answer: _____ ml

(b) Does the **capacity** of the dispenser change after the learners drink the juice? Explain briefly. [1]

Answer & Reason: _____