

Capacity

Name:

Date:

INQUIRY

A Korean soju bottle holds 360 mL. A German Maß holds 1,000 mL. How many soju bottles fill one Maß?

Discuss with your partner. Write your initial ideas below:

Key Vocabulary

Term	Definition
Capacity	How much liquid a container holds. Units: mL or L.
Key conversion	$1 \text{ cm}^3 = 1 \text{ mL}$. $1,000 \text{ cm}^3 = 1 \text{ L}$. $1 \text{ m}^3 = 1,000 \text{ L}$.

Part A — Conversions

1. Convert 5,000 cm^3 to litres. [1 marks]

Show your working:

2. Convert 3.5 L to mL. [1 marks]

Show your working:

3. Convert 2.4 m^3 to litres. [1 marks]

Show your working:

4. Fish tank: $72,000 \text{ cm}^3$. How many litres? [2 marks]

Show your working:

Part B — Volume to Capacity

5. NIS pool = 640 m^3 . Convert to litres. How many 600 mL bottles? [3 marks]

Show your working:

6. Chinese tea cup: 150 mL. Teapot: 1.2 L. How many cups per teapot? [2 marks]

Show your working:

7. Aquarium: $60 \times 30 \times 40 \text{ cm}$. (a) Volume in cm^3 (b) Convert to litres (c) Water costs $\text{¥}0.004/\text{L}$. Cost to fill? [4 marks]

Show your working:

Part C — Challenge

8. Xuanwu Lake: $3,700,000 \text{ m}^3$. Loses $\sim 50,000 \text{ L/day}$ to evaporation. How many days to lose 1% of volume? [4 marks]

Show your working: