

## Capacity quiz

Level A

1. What does the abbreviation cl stand for?
  - A) centimetres
  - B) hundred weight
  - C) centilitre
  - D) centilateral
2. Which unit of length is the most suitable for measuring the capacity of a bath?
  - A) ml
  - B) cl
  - C) l
3. Which units of capacity are the most suitable for measuring milk for a recipe?
  - A) l and cl
  - B) ml and cl
  - C) ml and l
4. How much liquid is there?



- A) 200 litres
  - B) 200 centilitres
  - C) 200 millilitres
  - D) 200 mm
5. What is a half litre of milk equivalent to?
  - A) 200 ml
  - B) 300 ml
  - C) 400 ml
  - D) 500 ml

## Capacity quiz

6. What is the capacity of this jug?



- A) 1/2 litre
- B) 1 litre
- C) 1/3 litre
- D) 1/4 litre

7. Which of these statements is incorrect?

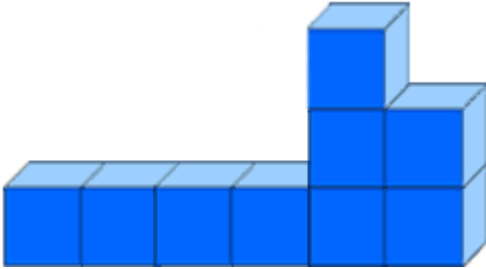
- A) 1 000 ml = 1 l
- B) 100 ml = 1 cl
- C) 100 cl = 1 l

8. Volume can be measured in:

- A) cm
- B) cm<sup>2</sup>
- C) cm<sup>3</sup>

## Capacity quiz

9. This shape is made up of unit cubes. Its volume in cubic centimetres is:



- A) 3
- B) 11
- C) 9

10. The volume of a cube of side length 2 m is:

- A)  $8 \text{ m}^3$
- B)  $6 \text{ m}^3$
- C) 8 m

## Capacity quiz

Level B

1. Which is the correct abbreviation for millilitre?  
A) ml  
B) milli  
C) mlll  
D) mili
2. What is a good estimate for a spoonful of medicine?  
A) 0.5 ml  
B) 5 ml  
C) 250 ml  
D) 5 l
3. Which of these is normally sold by the litre?  
A) baked beans  
B) medicine  
C) beer  
D) petrol
4. Estimate the amount of juice in the jug.



- A) 300 ml
- B) 280 ml
- C) 100 ml
- D) 250 ml

## Capacity quiz

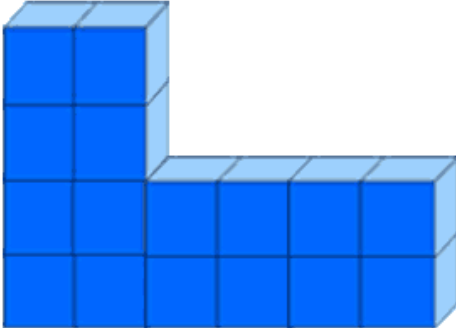
Use this measuring jug for questions 5, 6 and 7.



5. You want to measure out 175 ml of coconut milk for a recipe. Do you have the correct amount in the jug?
- A) Yes – just right
  - B) No – too little
  - C) No – too much
6. The coconut milk is for a curry. You've decided to double the amount of curry you cook and freeze some later. Is the jug large enough for measuring out all the milk in one go?
- A) Yes
  - B) No
7. What would be a good estimate for the amount of coconut milk in the jug?
- A) 150 ml
  - B) 175 ml
  - C) 225 ml
  - D) 200 ml

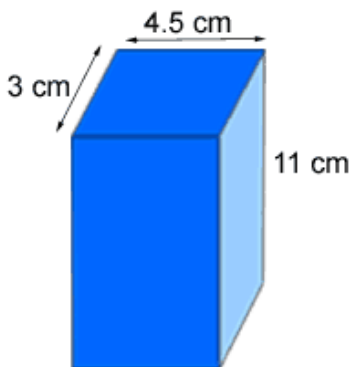
## Capacity quiz

8. The diagram represents a shape made from unit cubes.



Its volume is...

- A)  $12\text{cm}^3$
  - B)  $14\text{cm}^3$
  - C)  $16\text{cm}^3$
9. The volume of this cuboid is:



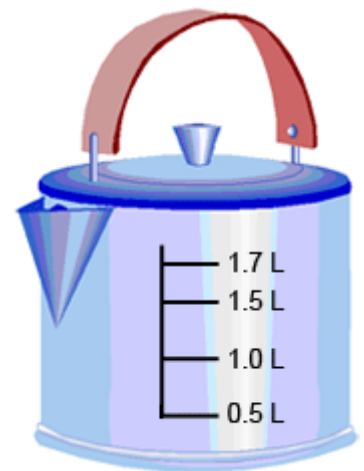
- A)  $18.5\text{cm}^3$
  - B)  $23.5\text{cm}^3$
  - C)  $148.5\text{cm}^3$
  - D)  $75.5\text{cm}^3$
10. A pool that has a volume of  $168\,000\text{ cm}^3$  has a capacity of:
- A) 1 680 litres
  - B) 16 800 litres
  - C) 168 litres

## Capacity quiz

Level C

1. You're cooking a sausage casserole and the recipe states you need to measure out 0.6 litre of vegetable stock. Your measuring jug's scale is in millilitres. How many millilitres of vegetable stock do you need to measure?  
A) 6 000 ml  
B) 600 ml  
C) 60 ml  
D) 6 ml
2. You are diluting some cleaner to mop the kitchen floor. You have to mix 60 ml of cleaner to 3.5 litres of water. What is 3.5 litres in millilitres?  
A) 35 ml  
B) 350 ml  
C) 3 500 ml  
D) 35 000 ml

Use this picture of a kettle to answer questions 3 and 4:



3. To save electricity you should only ever fill your kettle with the amount of water you need. You are making two mugs of coffee. Each mug holds approximately 300 ml. To what mark should you fill the kettle?  
A) A third of the way between 0.5L and 1.0L  
B) 1.0L  
C) 0.5L  
D) Halfway between 1.0L and 1.5L
4. You now have to make 5 mugs of tea. Remember, to save electricity you should only ever fill your kettle with the amount of water you need. Each mug holds approximately 300 ml. To what mark should you fill the kettle?  
A) 1.7L  
B) 1.5L  
C) 1.0L  
D) 0.5L

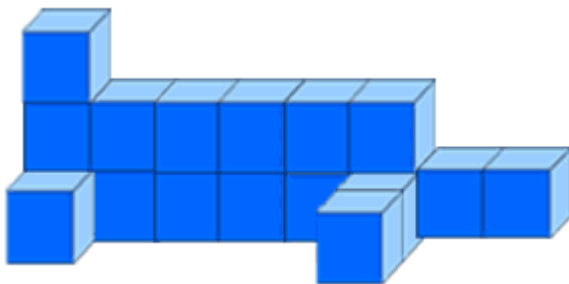
## Capacity quiz

5. You are making a batch of soup for your lunch at work.

Your soup flask holds 750 ml. You want to make enough soup for 3 days at work. How much soup do you need to cook?

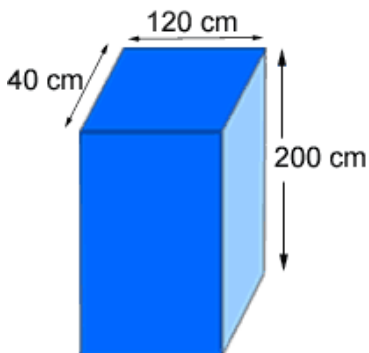
- A) 0.75 litres
- B) 1.5 litres
- C) 2 litres
- D) 2.25 litres

6. The shape is made of unit cubes. Its volume is...



- A) 14 cm<sup>3</sup>
- B) 16 cm<sup>3</sup>
- C) 18 cm<sup>3</sup>

7. This water tank has a capacity of about...



- A) 10 litres
- B) 100 litres
- C) 1 000 litres



## Capacity quiz

8. Zac wants to tile his kitchen floor, which is a rectangle 400 cm by 250 cm. If the adhesive is 0.1 cm thick he will need:
- A) 10 litres
  - B) 5 litres
  - C) 1 litre
9. Sheila has four planters, all cuboids 60 cm by 20 cm by 20 cm. How many 50 litre bags of compost will she need to fill them?
- A) 2
  - B) 3
  - C) 4
10. Lee has made a rectangular sandpit 2 m by 1.5 m. He's bought 1 cubic metre of sand. He will be able to fill the sandpit to a depth of about:
- A) 33 cm
  - B) 20 cm
  - C) 15 cm

## Capacity quiz

Answers

Level A

1. What does the abbreviation cl stand for?

The correct answer is: C. The abbreviation cl stands for centilitres, one hundredth of a litre.

2. Which unit of length is the most suitable for measuring the capacity of a bath?

The correct answer is: C. The most suitable unit of length for measuring the capacity of a bath would be l or litres.

3. Which units of capacity are the most suitable for measuring milk for a recipe?

The correct answer is: A. The most suitable unit for measuring the capacity of liquid in a recipe would probably be centilitres (cl) but l (litres) could also be used for larger amounts.

4. How much liquid is there?

The correct answer is: C. The answer is 200 millilitres.

5. What is a half litre of milk equivalent to?

The correct answer is: D. 1 litre is 1000ml and so a half litre is equivalent to 500 ml.

6. What is the capacity of the jug?

The correct answer is: B. The jug has a capacity of 1 litre.

7. Which of these statements is incorrect?

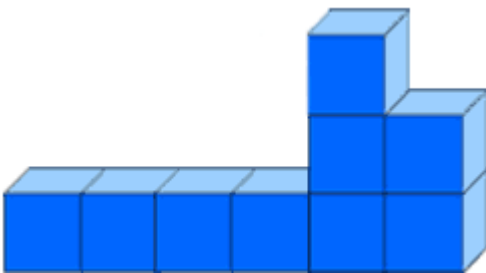
## Capacity quiz

The correct answer is: B. 100 ml does not equal 1 cl. There are 10 ml in 1 cl.

8. Volume can be measured in:

The correct answer is: C. Volume must be given in cubic units such as  $\text{cm}^3$ .

9. This shape is made up of unit cubes. Its volume in cubic centimetres is:



The correct answer is: C. 9. This shape is made up of unit cubes. There are 9 unit cubes so its volume in cubic centimetres is 9.

10. The volume of a cube of side length 2 m is:

The correct answer is: A.  $8 \text{ m}^3$ . The volume of a cube of side length 2 m is:  $2 \times 2 \times 2 = 8$ .

## Capacity quiz

Level B

1. Which is the correct abbreviation for millilitre?

The correct answer is: A. The abbreviation for millilitre is ml.

2. What is a good estimate for a spoonful of medicine?

The correct answer is: B. A good estimate for a spoonful of medicine is 5 ml.

3. Which of these is normally sold by the litre?

The correct answer is: D. Petrol is normally sold by the litre.

4. Estimate the amount of juice in the jug.

The correct answer is: B. The liquid has filled the container up to about 280 ml.

5. You want to measure out 175 ml of coconut milk for a recipe. Do you have the correct amount in the jug?

The correct answer is: C. It looks like there is over 175 ml of coconut milk in the jug. You need to pour some out before you continue!

6. The coconut milk is for a curry. You've decided to double the amount of curry you cook and freeze some later. Is the jug large enough for measuring out all the milk in one go?

The correct answer is: B. Each recipe needs 175 ml and the jug only has a capacity of 250 ml. You would need to measure the milk out twice.

## Capacity quiz

7. What would be a good estimate for the amount of coconut milk in the jug?

The correct answer is: C. The level of milk is below 250 ml and above 200 ml so a good estimate is 225 ml.

8. The diagram represents a shape made from unit cubes. Its volume is...

The correct answer is: C. The diagram represents a shape made from unit cubes. Its volume is  $16 \text{ cm}^3$ . There are 16 cubes, so it is  $16 \text{ cm}^3$ .

9. The volume of this cuboid is:

The correct answer is: C.  $3 \times 4.5 \times 11 = 148.5$ . So the volume is  $148.5 \text{ cm}^3$ .

10. A pool that has a volume of  $168\,000 \text{ cm}^3$  has a capacity of:

The correct answer is: C. A pool that has a volume of  $168\,000 \text{ cm}^3$  has a capacity of is 168 litres.

## Capacity quiz

Level C

1. You're cooking a sausage casserole and the recipe states you need to measure out 0.6 litre of vegetable stock. Your measuring jug's scale is in millilitres. How many millilitres of vegetable stock do you need to measure?

The correct answer is: B. Remember that:  $1\ 000\text{ ml} = 1\text{ L}$ . To convert from litres to millilitres multiply by 1 000:  $0.6 \times 1\ 000 = 600$ . You need to measure 600 ml of vegetable stock.

2. You are diluting some cleaner to mop the kitchen floor. You have to mix 60 ml of cleaner to 3.5 litres of water. What is 3.5 litres in millilitres?

The correct answer is: C. Remember that:  $1\ 000\text{ ml} = 1\text{ L}$ . To convert from litres to millilitres multiply by 1 000:  $3.5 \times 1\ 000 = 3\ 500$ . 3.5 L in ml is 3 500 ml.

3. To save electricity you should only ever fill your kettle with the amount of water you need. You are making two mugs of coffee. Each mug holds approximately 300 ml. To what mark should you fill the kettle?

The correct answer is: A. Remember that:  $1\ 000\text{ ml} = 1\text{ L}$ . In this question you have two amounts in litres and millilitres so you need to convert them to make it easier to compare.

You have two mugs of coffee to make:  $300 \times 2 = 600$ .

To change millilitres to litres you divide by 1 000:  $600 \div 1\ 000 = 0.6$ .

You need to fill up the kettle to 0.6 litres, which would be approximately a third of the way between 0.5L and 1.0L.

## Capacity quiz

4. You now have to make 5 mugs of tea. Remember, to save electricity you should only ever fill your kettle with the amount of water you need. Each mug holds approximately 300 ml. To what mark should you fill the kettle?

The correct answer is: B. Remember that: 1 000 ml = 1 L. In this question you have two amounts in litres and millilitres so you need to convert them to make it easier to compare.

You have five mugs of tea to make:  $300 \times 5 = 1\,500$ .

To change millilitres to litres you divide by 1 000:  $1\,500 \div 1\,000 = 1.5$ . You need to fill up the kettle to 1.5L.

5. You are making a batch of soup for your lunch at work. Your soup flask holds 750 ml. You want to make enough soup for 3 days at work. How much soup do you need to cook?

The correct answer is: D. First calculate three lots of 750 ml. You can do this through repeated addition:

$750 + 750 = 1\,500$   
then  $1\,500 + 750 = 2\,250$ .

2 250 ml is the same as 2.25 litres, and 1 000 ml = 1 L, so you need to cook 2.25 litres of soup.

6. The shape is made of unit cubes. Its volume is...

The correct answer is: C. The shape is made of unit cubes. Its volume is 18 cm<sup>3</sup>. There are 18 unit cubes.

7. The water tank has a capacity of about...

The correct answer is: C. This water tank has a capacity of about 1000 litres.

$120 \times 40 \times 600 = 960\,000 \text{ cm}^3$ , which is 960 litres.

## Capacity quiz

8. Zac wants to tile his kitchen floor, which is a rectangle 400 cm by 250 cm. If the adhesive is 0.1 cm thick he will need:

The correct answer is: A. Zac wants to tile his kitchen floor, which is a rectangle 400 cm by 250 cm. If the adhesive is 0.1 cm thick he will need 10 litres:  $400 \times 250 \times 0.1 = 10\,000 \text{ cm}^3$  which is 10 litres.

9. Sheila has four planters, all cuboids 60 cm by 20 cm by 20 cm. How many 50 litre bags of compost will she need to fill them?

The correct answer is: C. The volume of one planter is  $60 \times 20 \times 20 = 24\,000 \text{ cm}^3$

This is 24 litres. (Divide by 1 000).

There are 4 planters so the total volume is  $4 \times 24 = 96$  litres.

She will need two 50 litre bags to get 100 litres. That will fill all four planters.

10. Lee has made a rectangular sandpit 2 m by 1.5 m. He's bought 1 cubic metre of sand. He will be able to fill the sandpit to a depth of about...

The correct answer is: A. Lee has made a rectangular sandpit 2 m by 1.5 m. He's bought 1 cubic metre of sand. He will be able to fill the sandpit to a depth of about 33 cm. Do your working out in metres.

Volume is length  $\times$  width  $\times$  depth. You know the volume of the sand, so find the depth.

The length times width is  $2 \times 1.5 = 3$ . So to find depth divide the volume,  $1 \text{ m}^3$ , by this figure, 3. That gives  $1 \div 3 = \text{about } 0.33$

So the depth will be about 0.33 m. That is 33 cm.