FUNCTIONAL SKILLS MATHEMATICS

AQA | Edexcel | City & Guilds | Open Awards | NCFE | Highfield

Level 1

Capacity

Materials

- You **cannot** use a calculator for **questions** with this symbol.

Instructions

- Answer **all** questions.
- Answer questions on separate paper.

Information and Advice

- The marks for each question are shown in brackets – use this as a guide on how long to spend on each question.
- Read each question carefully before you answer it.
- Check you answers.

Q1 Convert these measurements of capacity from millilitres (ml) to litres (L).

1(a) 3000 ml

[1 mark]

1(b) 5000 ml

[1 mark]

1(c) 4200 ml

[1 mark]

1(d) 2600 ml

[1 mark]

1(e) 900 ml

[1 mark]

1(f) 160 ml

[1 mark]

1(g) 8844 ml

[1 mark]

1(h) 20126 ml

[1 mark]

1(i) 15 ml

[1 mark]

1(j) 124 ml

[1 mark]

10

Q2 Convert these measurements of capacity from litres (L) to millilitres (ml).

2(a) 6 L

[1 mark]

2(b) 2 L

[1 mark]

2(c) 4.4 L

[1 mark]

2(d) 3.18 L

[1 mark]

2(e) 0.266 L

[1 mark]

2(f) 0.9 L

[1 mark]

2(g) 3.144 L

[1 mark]

2(h) 8.197 L

[1 mark]

2(i) 0.003 L

[1 mark]

2(j) 0.158 L

[1 mark]

10

Q3 Add these capacities in millilitres (ml).

3(a) 300 ml + 400 ml

[1 mark]

3(b) 200 ml + 600 ml

[1 mark]

3(c) 150 ml + 550 ml

[1 mark]

3(d) 120 ml + 150 ml

[1 mark]

3(e) 133 ml + 54 ml

[1 mark]

3(f) 16 ml + 10 ml

[1 mark]

3(g) 996 ml + 334 ml

[1 mark]

3(h) 1028 ml + 1663 ml

[1 mark]

3(i) 901 ml + 2287 ml

[1 mark]

3(j) 20157 ml + 33112 ml

[1 mark]

10

Q4 Add these capacities in litres (L).

4(a) 3 L + 4 L

[1 mark]

4(b) 2 L + 8 L

[1 mark]

4(c) 9 L + 28 L

[1 mark]

4(d) 0.4 L + 0.2 L

[1 mark]

4(e) 0.3 L + 0.8 L

[1 mark]

4(f) 0.16 L + 0.11 L

[1 mark]

4(g) 0.029 L + 0.034 L

[1 mark]

4(h) 0.164 L + 0.1 L

[1 mark]

4(i) 0.004 L + 0.005 L

[1 mark]

4(j) 1023 L + 29114 L

[1 mark]

10

Q5 Misa wants to buy a barrel to be part of her home brewery. She wants to be able to store 20 pints of beer at any one time. Which of the following four barrels can she buy?

A – 21 pints
B – 18 pints
C – 9 pints
D – 24 pints

[2 marks]

Q6 A group's order at a local coffee shop has the following drinks on it:

Medium mocha (hot drink) – 450 ml
Bottle of cola (cold drink) – 500 ml
Extra large hot chocolate (hot drink) – 1000 ml
Large bottle of still water (cold drink) – 750 ml
Strawberry lemonade (cold drink) – 300 ml
Small tea (hot drink) – 250 ml

6(a) The small tea and the strawberry lemonade are for the same person. What is the total capacity of the drinks they have ordered?

[2 marks]

6(b) What is the total capacity of all of the cold drinks on the order?

[2 marks]

6(c) What is the total capacity of all of the hot drinks on the order?

[2 marks]

6(d) What is the total capacity of all of the drinks on the order?

[2 marks]

Q7 Ellie has a 2000 ml bottle of cola. She is pouring glasses for herself and two friends. She has three glasses, all of different sizes:
A – 568 ml
B – 500 ml
C – 330 ml

7(a) Ellie pours herself a glass first. She uses glass B. How much is left in the bottle?

[2 marks]

7(b) Ellie then pours her two friends a glass each, using glasses A and C. How much is left in the bottle now?

[2 marks]

7(c) Ellie wants a refill. Is there enough drink left in the bottle for her to fill her glass? If so, how much will be left once she has taken her refill?

[2 marks]

Q8 Russell has 50 flower pots, each of capacity 2.4 L. He wishes to buy compost to fill them up. Compost is brought in bags of 10 L. He buys 11 bags.

8(a) What is the capacity of all of the flower pots combined?

[2 marks]

8(b) What is the total capacity of the purchased compost?

[2 marks]

8(c) Does Russell have enough compost to fill all of his flower pots? Explain your answer.

[2 marks]

Q9 A pub sells the following amount of each drink per month:
Strongberg's Extra Special Lager – 360 L
House Brew – 54 L
Cherry Cola – 126 L
Fenland Coffee – 36 L
Drinks are sold to the pub in barrels, which are 18 L each.
How many barrels of each drink should the pub buy each month?

[4 marks]

Q10 Add together these capacities:

10(a) 400 ml + 0.5 L

[2 marks]

10(b) 2000 ml + 3 L

[2 marks]

10(c) 38 ml + 0.052 L

[2 marks]

10(d) 0.114 L + 52 ml

[2 marks]

10(e) 24300 ml + 18.177 L

[2 marks]

10(f) 388 ml + 0.156 L + 211 ml

[2 marks]

Q11 Nine different bottles of water are for sale at a supermarket.
A – 0.5 L
B – 400 ml
C – 330 ml
D – 0.25 L
E – 5 L
F – 2000 ml
G – 568 ml
H – 1 L
I – 750 ml

11(a) Add together the capacities of E and G.

[2 marks]

11(b) Add together the capacities of A, D, F and I

[2 marks]

11(c) Add together the capacities of the largest bottle and the smallest bottle.

[3 marks]

11(d) Add the capacities of all of the bottles of water.

[2 marks]

Q12 Sofia has three containers. Container A has a capacity of 1.5 L and is half full. Container B has capacity 2 L and is one quarter full. Container C has capacity 900 ml and is one third full.

12(a) How much is in each container? Give your answers in millilitres.

[3 marks]

12(b) One third of the liquid in container A is poured into container C. How much is now in container C?

[2 marks]

12(c) Half of the liquid now in container C is poured into container B. How much is now in container B? Give your answer in litres.

[3 marks]

Q13 A leak in a paddling pool releases 500 ml of water every minute. The capacity of the paddling pool is 300 L.

13(a) Initially, the paddling pool is filled to two thirds of its capacity. Find the volume of water in it at this point.

[2 marks]

13(b) Find the capacity of the paddling pool after ten minutes of leaking.

[3 marks]

13(c) How many minutes will it take for the capacity to decrease to 150 L from the initial point?

[3 marks]