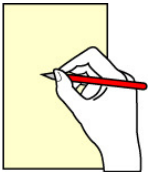# Build your skills: Working out best value – Part 3

This part of the task gives you the chance to try out your skills and check your progress with some typical questions from the National Test at Level 2. It also contains the answers to all the activities in Part 1 and Part 3.

Try it out

Now try out your skills by doing the following task.

You are doing the external catering for an event .The chart below shows you the amounts of different foods you need per person at a typical event.

Catering amounts per person

Vegetables	Mashed potatoes	170 grams
	New potatoes	110 grams
	Rice – before cooking	55 grams
Meat and fish	Prawns – as a starter	75 grams
	Prawns – as a main course	140 grams
	Chicken	450 grams
	Lamb	275 grams
	Pork	175 grams

1 Work out how much of each kind of food you will need for the following party:

Amount needed

a Ten people want lamb

b Five people want prawns as a main course

c Ten people want chicken

d Ten people want rice

e Ten people want new potatoes

f Five people want mashed potatoes

You go shopping for the ingredients you need for the event.

2 Which of the following is the best value way to buy each ingredient?

| Potatoes: | 60p per kilogram | or | £1.75 for a 2.5 kg bag |
Rice:	45p for 250 g	or	£1.60 for a 1 kg bag
Lamb:	£2.50 per kilogram	or	£6.60 for a 3 kg pack
Chicken:	£1.80 per kilogram	or	£4.50 for a 2.5 kg pack
Prawns:	£1.20 for 200 g	or	£4.55 for 700 g

3 How many of that size would you need to buy to make up the amount needed for each ingredient?

4 Are there any reasons why you might not choose the best value option of any of the ingredients?

5 What is the total cost of all the ingredients?
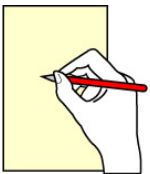
Questions to check on your progress

These questions are taken from the Progress Checks – confidence-building tests on the Move On Learner Route.

1 (taken from numeracy Level 2, Progress check E, Q26)

A bottle of grape juice contains 75 centilitres. This is enough to fill 6 small glasses.

1 litre = 100 centilitres

How many of these small glasses will 3 one-litre juice cartons fill?

A. ☐ 18

B. ☐ 24

C. ☐ 38

D. ☐ 50

2 (taken from numeracy Level 2, Progress check F, Q33)

A man keeps fish in a tank. The shape of the tank is a cuboid. After cleaning the tank he uses a 10 litre bucket to refill it to the depth of 50 centimetres.

What is the minimum number of times he empties the bucket into the tank?

Tip: Think about the volume of water in the container when it's filled up to a height of 50 cm. Use the information provided about how many cubic centimetres there are in one litre to work out how many litres will be in the tank.

80cm

50cm

40cm
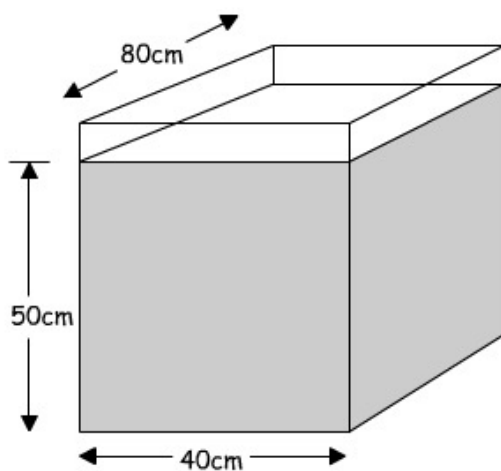
Diagram not to scale
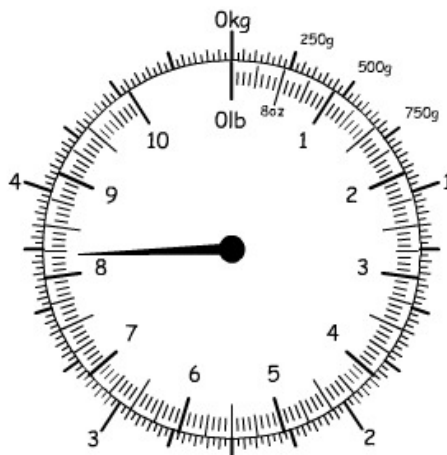
1 litre = 1000 cubic centimetres

A. ☐ 16

B. ☐ 17

C. ☐ 160

D. ☐ 190

3 (taken from numeracy Level 2, Progress check I, Q5)

The diagram shows the dial on a set of parcel scales. The weight can be read in either pounds (lb) or kilograms (kg).

What is the reading on the dial in kilograms and grams, to the nearest 250 grams?
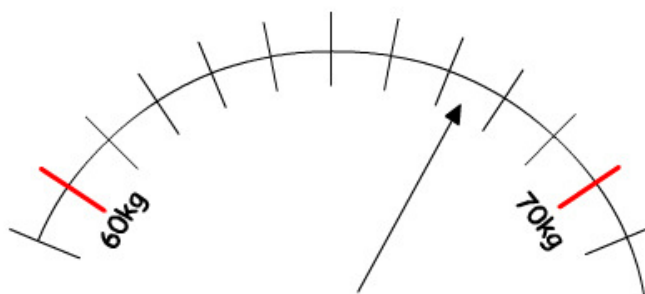

A. ☐ 3 kg 15 g

B. ☐ 3 kg 750 g

C. ☐ 3 kg 900 g

D. ☐ 4 kg 250 g

4 (taken from numeracy Level 2, Progress check I, Q10)

A man stands on the bathroom scales with his clothes on. The diagram shows the reading on the scale.

His clothes weigh 2 kilograms. Approximately, how much does he weigh unclothed?

A. ☐ 65 kg

B. ☐ 65.5 kg

C. ☐ 67.5 kg

D. ☐ 69.5 kg

**5** (taken from numeracy Level 2, Progress check I, Q37)

A baker makes cakes. Each cake fits into a rectangular tin. He packs the tins in a box with the internal dimensions shown below.

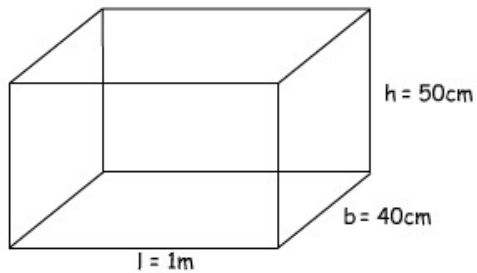The maximum number of tins the baker can pack in a box is

Tip: Look carefully at the measurements for the breadth (b), width (w) and height (h) of the tins and the box they are being packed into.

l = 20cm

b = 20cm

h = 5cm

This diagram shows the cake tin.
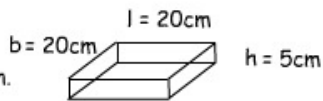
Diagrams not to scale

h = 50cm

b = 40cm

l = 1m

A. ☐ 10

B. ☐ 50

C. ☐ 100

D. ☐ 200

✓ **Answers to questions in Part 1**

Activity 1
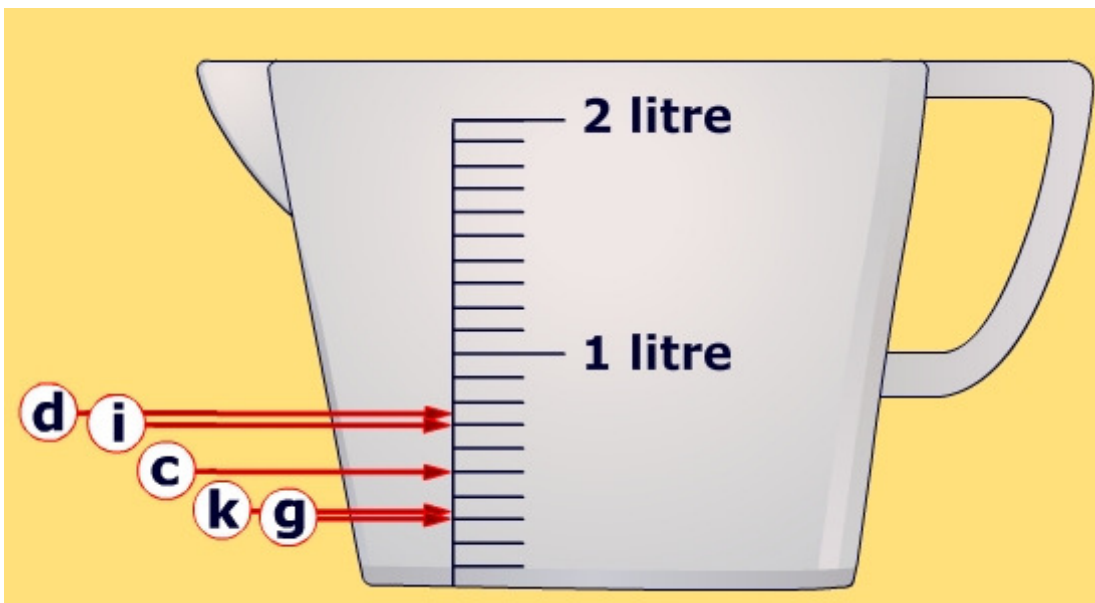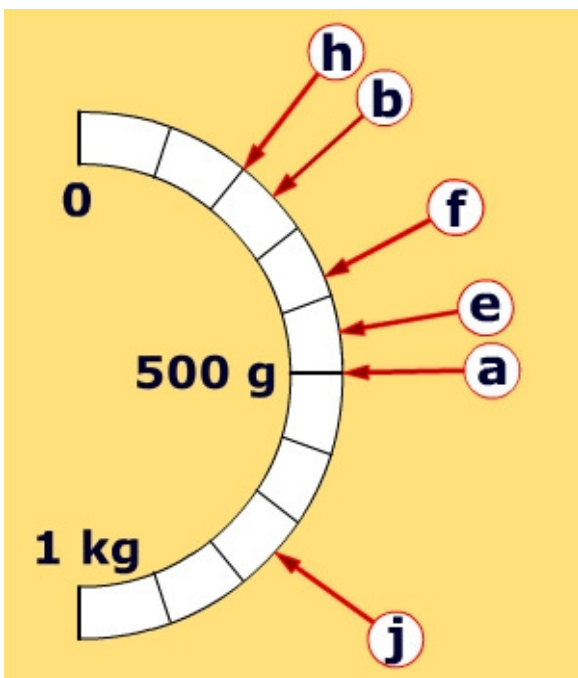
Activity 2

Item A	Item B	How many of smaller size fit into larger size?	Which is best value?
Hot chocolate 250 g £2.30	Hot chocolate 500 g £4.25	**2** smaller jars (2 × 250 g = 500 g)	**500 g** (two smaller jars = £4.60 in total, one larger jar = £4.25)
Coffee 50 g £1.50	Coffee 200 g £4.99	4 smaller jars	200 g (four smaller jars = £6.00, one larger jar = £4.99)
Flour 750 g 70p	Flour 1.5 kg £1.35	2 smaller packets	1.5 kg (two smaller packets = £1.40, one larger packet = £1.35)
Washing powder 750g £2.20	Washing powder 3 kg £7.99	4 smaller boxes	3 kg (four smaller boxes = £8.80, one larger box = £7.99)

Item A	Item B	How many of smaller size fit into larger size?	Which is best value?
Rice 500 g 85p	Rice 2 kg £3.20	4 smaller packets	2 kg (four smaller packets = £3.40, one larger packet = £3.20)
Butter 250 g £1.12	Butter 750 g £3.40	3 smaller tubs	750 g (three smaller tubs = £3.36, one larger tub = £3.40)
Cheese 250 g £1.75	Cheese 1.5 kg £9.50	6 smaller packets	1.5 kg (six smaller packets = £10.50, one larger packet = £9.50)
Juice 500 ml 72 p	Juice 1.5 litres £2.15	3 smaller cartons	1.5 litres (three smaller cartons = £2.16, one larger carton = £2.15)
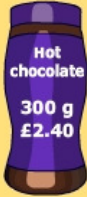
Item A	Item B	How many of smaller size fit into larger size?	Which is best value?
Lemonade 750 ml 90 p	Lemonade 1.5 litres £1.79	2 smaller bottles	1.5 litres (two smaller bottles = £1.80, one larger bottle = £1.79)
300 ml 40p	1.5 litres £1.80	5 smaller bottles	1.5 litres (five smaller bottles = £2.00, one larger bottle = £1.80)
Washing up liquid 375 ml 72p	Washing up liquid 1.5 litres £2.90	4 smaller bottles	1.5 litres (four smaller bottles = £2.88, one larger bottle = £2.90)
Shampoo 200 ml 80p	Shampoo 0.6 litres £2.35	3 smaller bottles	0.6 litres (three smaller bottles = £2.40, one larger bottle = £2.35)

Activity 3

Item A	Item B	Price per 100 g		Which is best value?
		A	**B**	
Coffee 100 g £1.80	Coffee 400 g £6.99	£1.80	£1.75 approx.	**400 g jar (B)**
Hot chocolate 300 g £2.40	Hot chocolate 500 g £4.25	80p	85p	A
Flour 600 g 72p	Flour 1.5 kg £1.65	12p	11p	B
Washing powder 700 g £1.75	Washing powder £4.32 1.8 kg	25p	24p	B

Item A	Item B	Price per 100 g		Which is best value?
		A	**B**	
Rice 300 g 66p	Rice 0.8 kg £1.84	22p	23p	**A**
Butter 200 g 60p	Butter 700 g £2.10	30p	30p	**same**
Cheese 200 g £1.80	Cheese 0.7 kg £6.65	90p	95p	**A**
Juice 500 ml 75p	Juice 0.8 litres £1.12	15p	14p	**B**

Item A	Item B	Price per 100 g		Which is best value?
		A	**B**	
Washing up liquid 300 ml £1.20	Washing up liquid 0.8 litres £2.80	40p	35p	B
600 ml £1.32	1 litre £2.25	22p	22.5p	A
Shampoo 200 ml 80p	Shampoo 0.5 litres £2.05	40p	41p	A

Activity 4

1 You could work out the cost per 50 g:

- 350 ml, priced at £1.40 → 20p per 50 g

- 600 ml, priced at £3.00 → 25p per 50 g

2 You could work out the cost per ½ kg (0.5 kg):

- 1.5 kg, priced at £1.80 → 60p per ½ kg

- 2.5 kg, priced at £2.49 → 50p per ½ kg

3 You could work out the cost for 10 ml:

- 120 ml, priced at 84p → 7p per 10 ml

- 200 ml, priced at £1.50 → 7.5p per 10 ml

Activity 5

1 A six pack of 300 ml cans of lemonade priced at £1.80 or a 1 litre bottle of lemonade priced at £1.20

1.8 litres for £1.80

Cost per litre: £1.00 (£1.80 ÷ 1.8)

1 litre for £1.20

Cost per litre: £1.20

2 A 1.2 kg tin of chocolates priced at £5.99 or 500 g boxes of chocolates priced at £2.09 each, but on offer 'buy one get one free'

1.2 kg for £5.99

Cost per kilogram: £5.00 (£6.00 ÷ 1.2)

1,000 g (1 kg) for £2.09

Cost per kilogram: £2.09

3 500 g packs of cheese priced at £2.80 or 300 g packs of cheese priced at £1.90 each, but on offer 'buy 2 for £3.60'

500 g for £2.80

Cost per 100 g: 56p (£2.80 ÷ 5)

600 g for £3.60

Cost per 100 g: 60p (£3.60 ÷ 6)

Answers to questions in Part 3

Try it out

1   Work out how much of each kind of food you will need for the following party:

		Amount needed
a	Ten people want lamb	2.75 kg
b	Five people want prawns as a main course	700 g
c	Ten people want chicken.	4.5 kg
d	Ten people want rice	550 g
e	Ten people want new potatoes	1.1 kg
f	Five people want mashed potatoes	850 g

2   Which of the following is the best value way to buy each ingredient?

Potatoes: 60p per kilogram   or   £1.75 for a 2.5 kg bag

Rice: 45p for 250 g   or   £1.60 for a 1 kg bag

Lamb: £2.50 per kilogram   or   £6.60 for a 3 kg pack

Chicken: £1.80 per kilogram   or   £4.50 for a 2.5 kg pack

Prawns: £1.20 for 200 g   or   £4.55 for 700 g

3 How many of that size would you need to buy to make up the amount needed for each ingredient?

Potatoes:	2 kg	£1.20
Rice:	1 × 1 kg bag	£1.60
Lamb:	1 × 3 kg pack	£6.60
Chicken:	4.5 kg	£8.10
Prawns:	4 × 200 g	£4.80

4 I might not want to buy extra prawns or lamb that I wouldn't use, as they would not keep. Rice and potatoes would keep well, so it wouldn't matter if I have some left over.

5 If I buy all of the best value sizes, the ingredients would cost £22.30.

Questions to check on your progress

1 Progress check E, Q26

B   24 glasses

750 ml gives six glasses

3,000 ml is four times as much → 24 glasses

2 Progress check F, Q33

A   16 buckets

Tip: Think about the volume of water in a container when it's filled up to a height of 50 cm.

40 × 80 × 50 = 160,000 cc

Tip: Use the information provided about how many cubic centimetres there are in one litre to work out how many litres will be in the tank.

160,000 cubic centimetres = 160 litres

10 litres per bucket → 16 buckets

3 Progress check I, Q5

B   3 kg 750 g

4 Progress check I, Q10

B   65.5 kg

67.5 kg – 2 kg

5 Progress check I, Q37

C   100 tins

Tip: Look carefully at the measurements for the breadth (b), width (w) and height (h) of the tins and the box they are being packed into.

2 × 5 tins = 10 tins in bottom row

10 rows × 10 tins per row = 100 tins