

R18 Value for money

OCR

3 (a) A supermarket sells washing liquid in two sizes.



Large



Small

Which size is better value for money?  
Show how you decide.


(a) ..... [3]

(b) This is part of a label on a box of cereal.



3 (a) A supermarket sells washing liquid in two sizes.


1.8  
1800 ml



1.8 litres  
£4.21

£4.21 ÷ 1800  
= £0.002338 ml

Large



750 ml  
£1.70

= 1 ml  
£1.70 ÷ 750  
= £0.00226 ml

Small

Which size is better value for money?  
Show how you decide.

cheaper

Small is better value

(a) ..... [3]

- 3 A 100 g packet of tea costs £4.16.  
A 25g packet of the same tea costs £1.05.

Which packet is better value for money?  
Show how you decide.

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Which packet is better value for money?  
Show how you decide.

$$100\text{g} = \text{£}4.16$$

100 g is better  
value for money.

$$25\text{g} = \text{£}1.05$$

x4

$$\rightarrow 100\text{g} = \text{£}4.20$$

11 Pippa owns a snack bar.

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(a) She uses  $\frac{3}{5}$  of a kilogram of spread each day.

**R18** Spread costs £3.20 for a 1 kilogram tub and £6.15 for a 2 kilogram tub.

**N39** Pippa buys enough spread to last for 14 days.

What is the lowest price Pippa can buy this spread for?  
Show your working.

(a) £ ..... [4]

11 Pippa owns a snack bar.

Created by W Neill

(a) She uses  $\frac{3}{5}$  of a kilogram of spread each day.

R18 Spread costs £3.20 for a 1 kilogram tub and £6.15 for a 2 kilogram tub.

N39 Pippa buys enough spread to last for 14 days.

What is the lowest price Pippa can buy this spread for?  
Show your working.

$$\frac{3}{5} \text{ kg} \times 14 \text{ days} \\ = 8.4 \text{ kg needed}$$

2kg is cheaper

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$$4 \times £6.15 = 8 \text{ kg} \\ = £24.60$$

$$1 \text{ kg} = £3.20$$

(a) £ ..... £27.80 ..... [4]



- (b)** In 2016, Pippa paid £1650 rent.  
In 2017, the rent increased by 14%.

**R8**

Calculate the amount of rent she paid in 2017.

**(b)** £ ..... **[3]**

- (b) In 2016, Pippa paid £1650 rent.  
In 2017, the rent increased by 14%.

R8

Calculate the amount of rent she paid in 2017.

$$\begin{array}{r} 14\% \text{ of } \pounds 1650 \\ \times \\ \hline = \pounds 231 \end{array}$$

$$\pounds 1650 \times 1.14$$

$$\pounds 1650 + \pounds 231$$

(b) £           £1881           [3]

- 5 *Tea Biscuits* can be bought in packets of 20 or packets of 24.  
All biscuits are identical in size and quality.

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20 *Tea Biscuits*  
for  
£1.50

24 *Tea Biscuits*  
for  
£1.80

Nada says

The packet of 24 biscuits is better value.

Is Nada correct?  
Show how you decide.

Nada is ..... because.....

..... [3]

- 5 *Tea Biscuits* can be bought in packets of 20 or packets of 24.  
All biscuits are identical in size and quality.

Created by W Neill

R18

20 *Tea Biscuits*  
for  
£1.50

24 *Tea Biscuits*  
for  
£1.80

$$1 \text{ TB} = \frac{£1.80}{24}$$

Nada says  $1 \text{ TB} = \frac{£1.50}{20} = £0.075$

The packet of 24 biscuits is better value.

$$= £0.075$$

Is Nada correct?  
Show how you decide.

Nada is Incorrect because both sets of biscuits are equal in value. [3]

15 Tea bags of similar quality are sold in three different sized packs:

Video created by W Neill

Small Pack  
80  
tea bags  
for  
£2.10

Medium pack  
150  
tea bags  
for  
£3.55

Large pack  
220  
tea bags  
for  
£5.25

(a) Which pack is the best value for money?  
Show how you decide.

R18

..... because .....

..... [4]

(b) Explain why someone may buy a pack which is not the best value for money. [1]

.....

15 Tea bags of similar quality are sold in three different sized packs:

Video created by W Neill

1 tea bag

Small Pack	Medium pack	Large pack
80 tea bags for £2.10	150 tea bags for £3.55	220 tea bags for £5.25

$$£5.25 \div 220 = 0.02386$$

$$£2.10 \div 80 = 0.02625$$

$$3.55 \div 150 = 0.0236$$

(a) Which pack is the best value for money? Show how you decide.

$$= 0.0236 \checkmark \text{ smallest}$$

R18

Medium because as it is cheaper for 1 tea bag [4]

(b) Explain why someone may buy a pack which is not the best value for money. [1]

Maybe they will not be used (bigger pack)

Edexcel

18 Identical trainers are sold in London, in New York and in Dubrovnik.

Video create

The table shows the price of the trainers in each city.

R18

R19

London	New York	Dubrovnik
£100	\$132	1000 kuna

The exchange rates are

$$£1 = \$1.38 \quad £1 = 8.42 \text{ kuna}$$

Where are the trainers the best value for money, in London or in New York or in Dubrovnik?

You must show how you get your answer.

.....



18 Identical trainers are sold in London, in New York and in Dubrovnik.

Video create

The table shows the price of the trainers in each city.

R18

R19

London	New York	Dubrovnik
£100	\$132	1000 kuna

The exchange rates are

$\times 1.38$

£1 = \$1.38

$\div 1.38$

$\times 8.42$

£1 = 8.42 kuna

$\div 8.42$

Where are the trainers the best value for money, in London or in New York or in Dubrovnik?

You must show how you get your answer.

Ans

New York is best value for money.

London

£100

NY

$$\text{\$132} \div 1.38 =$$

£95.65

Dub

$$1000 \text{ kuna} \div 8.42 = \text{£118.76}$$

**23** In London, 1 pint of milk costs 58p.  
In Paris, 1 litre of milk costs 1.05 euros.

**R18** 1 litre = 1.76 pints  
**R19** £1 = 1.17 euros

In which city is the milk better value for money, London or Paris?  
You must show your working.

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**(Total for Question 23 is 3 marks)**

- 23 In London, 1 pint of milk costs 58p.  
In Paris, 1 litre of milk costs 1.05 euros.

R18

1 litre = 1.76 pints

R19

£1 = 1.17 euros

←  $\div 1.17$ 

In which city is the milk better value for money, London or Paris?

You must show your working.

$$1L = 1.76p$$

$\div 1.76$  (above the line)  
 $\times 1.76$  (below the line)

$$\left. \begin{array}{l} \text{London} = 58p \\ \text{Paris } 1L = 1.76 \text{ pints} \end{array} \right\}$$

---

Paris is better  
 $€0.51 < £0.58$

$$\begin{array}{l} \div 1.76 \left\{ \begin{array}{l} 1.76 \text{ pints} = €1.05 \\ \div 1.76 \\ 1 \text{ pint} = €0.5965 \\ \div 1.17 \\ £0.509 \approx £0.51 \end{array} \right. \end{array}$$

---

(Total for Question is 3 marks)

- 
- 20** In London, 1 litre of petrol costs 108.9p  
In New York, 1 US gallon of petrol costs \$2.83

Created by W Neill

1 US gallon = 3.785 litres

£1 = \$1.46

In which city is petrol better value for money, London or New York?  
You must show your working.

(Total for Question 20 is 3 marks)

- 20 In London, 1 litre of petrol costs 108.9p  
In New York, 1 US gallon of petrol costs \$2.83

1 US gallon = 3.785 litres

£1 = \$1.46

In which city is petrol better value for money, London or New York?  
You must show your working.

London

$$\begin{array}{l} \text{1 Litre} = \text{£}1.089 \\ \times 3.785 \quad \swarrow \quad \searrow \quad 3.785 \\ \hline \text{1 gallon} = \text{£}4.121 \end{array}$$

$$\text{£}4.121 \times 1.46 =$$

$$\text{\$}6.02$$

New York

$$\text{1 US gallon} = \text{\$}2.83$$

$$\begin{array}{l} \times 1.46 \\ \hline \text{£}1 \rightarrow \text{\$}1.46 \end{array}$$

USA is better

value ✓

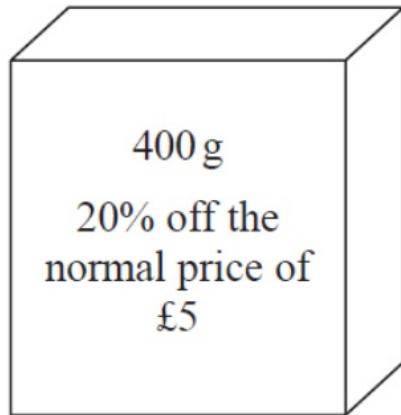
(Total for Question 20 is 3 marks)

18 Food Mart and Jan's Store sell boxes of the same type of breakfast cereal. Video Created by W Neill

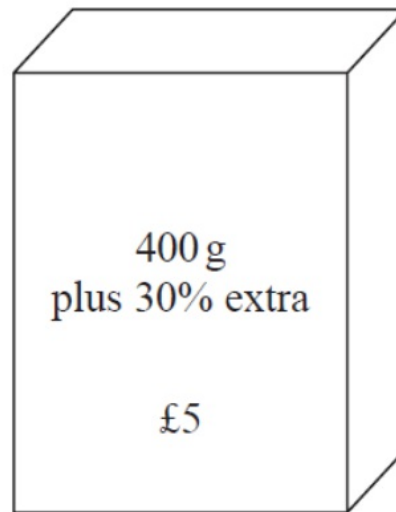
R18 Each shop has a special offer.

R8

**Food Mart**



**Jan's Store**



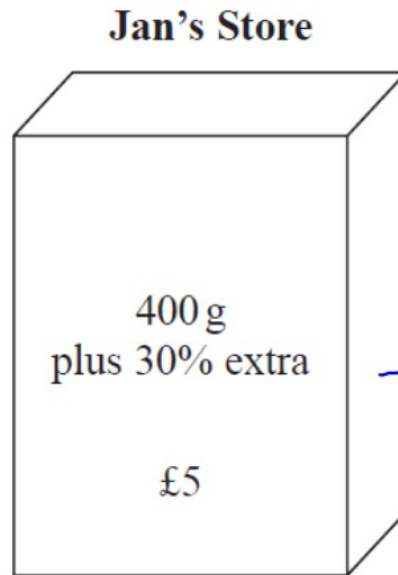
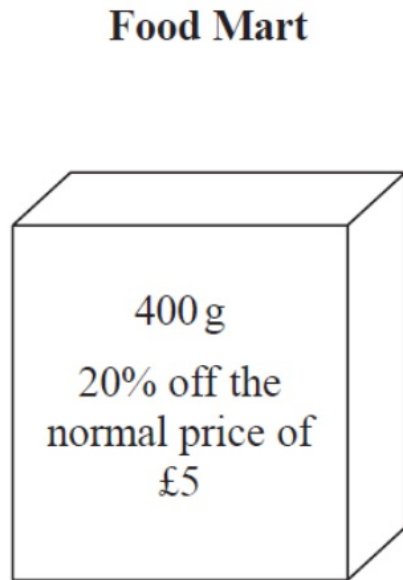
Which box of cereal is the better value for money?  
You must show your working.

(Total for Question 18 is 4 marks)



18 Food Mart and Jan's Store sell boxes of the same type of breakfast cereal.

R18 Each shop has a special offer.  
R8



Food Mart 20% of £5.00  
10% = £0.50  
20% = £1.00  
20% off = £4  
£4 for 400g

JS... 30% of 400 = 120g  
10% = 40g  
30% = 120g  
520g = £5

Which box of cereal is the better value for money?  
You must show your working.

FM £4 = 400g  
£1 = 100g  
JS £5 = 520g  
£1 = 104g  
JS is better value ✓

(Total for Question 18 is 4 marks)

AQA

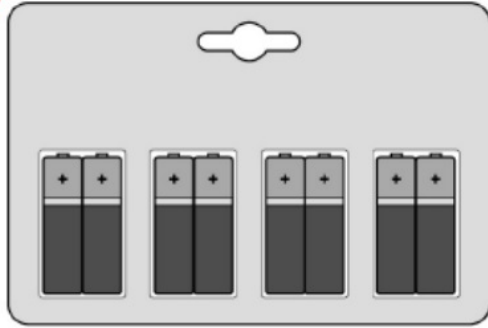


18

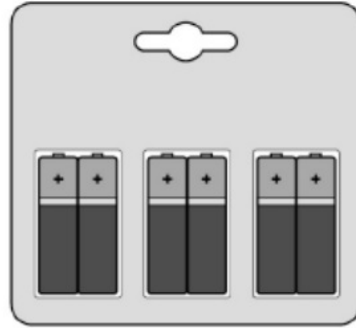
A shop sells two brands of battery.

Video created by W Neill

R18



Brand A  
Pack of 8  
Price £3.60



Brand B  
Pack of 6  
Price £2.94

One brand A battery powers a toy for 5 hours.

One brand B battery powers the same toy for  $5\frac{1}{2}$  hours.

Which brand is better value?

You **must** show your working.

**[5 marks]**

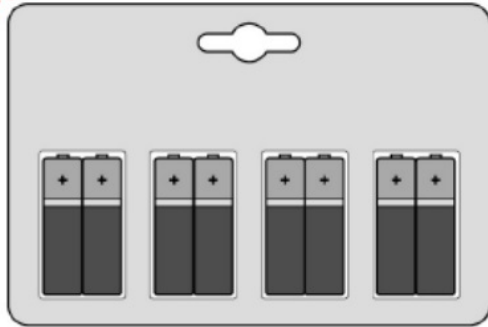
Answer \_\_\_\_\_

18

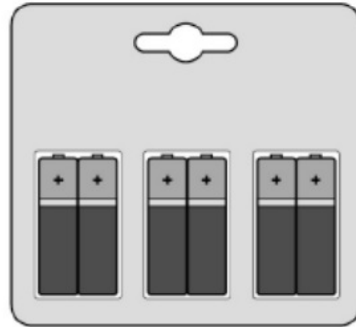
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One brand B battery powers the same toy for  $5\frac{1}{2}$  hours.

Which brand is better value?

You **must** show your working.

[5 marks]

Answer Brand B is better value

1 battery

Brand A

$$13.60 \div 8 = £0.45$$

$$£0.45 = 5 \text{ hrs}$$

$$£0.09 = 1 \text{ hr}$$

Brand B

$$£2.94 \div 6 = £0.49$$

$$£0.49 = 5\frac{1}{2} \text{ hrs}$$

$$£0.49 \div 5.5 = 0.0890$$

$$£0.0890 = 1 \text{ hr}$$