

Name:

Exam Style Questions

Best Buys



Corbettmaths

Equipment needed: Calculator, pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

Video 210



Answers and Video Solutions



1. Water is sold in two sizes.



1 gallon



85p

2 gallons



£1.72

Which is the better value for money?
You must show all your working.

$$(2 \times 1 \text{ gallon}) : 85p \times 2 = \pounds 1.70$$

$$1 \times 2 \text{ gallon} : \pounds 1.72$$

The 1 gallon container is better value.

(2)

2. The same type of dinner plate is sold in two different packs.



Small pack
Contents
3 plates

£5.25



Large pack
Contents
12 plates

£21.24

Which is the better value for money?
You must show all your working.

$$4 \times 3 \text{ plates} : \pounds 21.00$$

$$1 \times 12 \text{ plates} : \pounds 21.24$$

$$\begin{array}{r} 5.25 \\ \times 4 \\ \hline 21.00 \end{array}$$

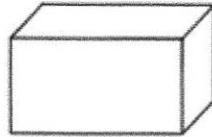
The small pack is better value.

(2)

3. Vegetarian burgers are sold in two different sizes.

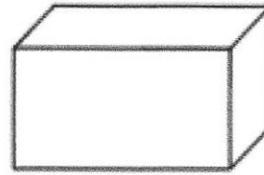


Regular Packet
8 burgers



£1.59

Large Packet
24 burgers



£4.79

Which size packet is the better value for money?
You must show all your working.

$$3 \times 8 \text{ burgers} : \text{£}4.77$$

$$\begin{array}{r} 1.59 \\ \times 23 \\ \hline 4.77 \end{array}$$

$$1 \times 24 \text{ burgers} : \text{£}4.79$$

The regular packet is better value for money.

(2)

4. James and Maddie are selling cupcakes.



James sells 6 cupcakes for £5
Maddie sells 4 cupcakes for £3.50

$$\begin{array}{l} 6 \quad (12) \\ 4 \quad 8 \quad (12) \end{array}$$

Which is better value?
You must show all your working.

To buy 12 cupcakes

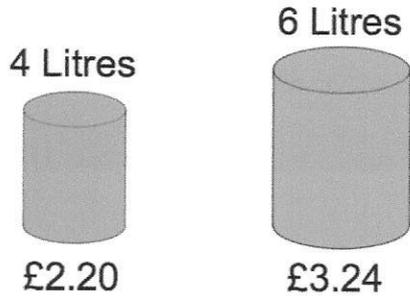
$$\text{James } \text{£}5 \times 2 = \text{£}10$$

$$\text{Maddie } \text{£}3.50 \times 3 = \text{£}10.50$$

James's offer is the best value for money.

(3)

5. Orange juice is sold in two size containers.



4 8 (12)
6 (12)

A small container contains 4 litres of orange juice and costs £2.20
A large container contains 6 litres of orange juice and costs £3.24

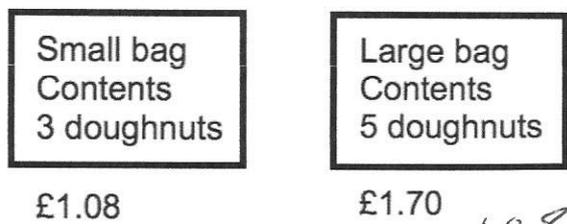
Which size of container gives the better value for money?
You must show all your working.

small £2.20 × 3 = £6.60
large £3.24 × 2 = £6.48

The large container is better value for money.

(4)

6. A shop sells doughnuts in two different size bags.



3 6 9 12 (15)
5 10 (15)

1.08 × 45 ----- 5.40	1.70 × 3 ----- 5.10
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Which is the better value for money?
You must show all your working.

Small bag - £5.40 for 15
Large bag - £5.10 for 15

The large bag is better value.

(3)

8 16 24 32 (40)
 10 20 30 (40)

7. Snacks can be bought in



a pack of 8 biscuits for £1.92
 a pack of 10 biscuits for £2.55

Which of these two packs is better value for money?
 You must show all your working.

8 pack

$$\begin{array}{r} \text{£} 1.92 \\ \times 5 \\ \hline \text{£} 9.60 \\ \text{for } 40 \end{array}$$

10 pack

$$\begin{array}{r} \text{£} 2.55 \\ \times 2 \\ \hline \text{£} 10.20 \\ \text{for } 40 \end{array}$$

The 8 pack is better value.

(3)

8. In a shop, glue sticks cost:



75p each

or

£3.50 for a box of 5 glue sticks

Work out the cheapest price for 24 glue sticks.

$4 \times 5 = 20$ glue sticks

$$\begin{array}{r} 3.50 \\ \times 4 \\ \hline 14.00 \end{array}$$

$$\begin{array}{r} 75 \\ \times 4 \\ \hline 300 \end{array}$$

$14 + 3 = \text{£} 17$

£17

(3)

9. 50 rulers cost £10 ^{1000p}



30 protractors cost £5.40 ^{540p}

A protractor is cheaper than a ruler.

Work out how much cheaper.

$$50 \overline{) 1000} \begin{array}{r} 0020 \\ \underline{1000} \\ 0000 \end{array}$$

20p per ruler

$$30 \overline{) 540} \begin{array}{r} 018 \\ \underline{30} \\ 240 \\ \underline{240} \\ 000 \end{array}$$

18p per protractor

$$20 - 18 = 2$$

.....
2p
..... (3)

10. Two teachers, Mr Stevens and Miss Hendry each buy 180 pencils.



Small box

20 pencils for £1.60

$$20 \times 9 = 180$$

Large box

30 pencils for £2.19

$$30 \times 6 = 180$$

Mr Stevens buys only small boxes of pencils.

Miss Hendry buys only large boxes of pencils.

Work out how much more Mr Stevens pays for the 180 pencils than Miss Hendry.

$$£1.60 \times 9 = £14.40$$

$$£2.19 \times 6 = £13.14$$

$$14.40 - 13.14 = 1.26$$

.....
£1.26
.....

(4)

11. A shop normally sells a packet of 15 pens for £4.50



In a sale, they offer 2 packets for £7.80

30 pens

The shop put up this sign.

Save 5p per pen!

Is the sign correct?

You must show your working.

$$450 \div 15 = 30p \text{ per pen.}$$

$$780 \div 30 = 26p \text{ per pen.}$$

No, you only save 4p per pen.

(3)

12. A shop sells Cola in three different size bottles.



2 Litre
£1.99

x 3

0.6

600ml
62p

x 10

1.5 Litre
£1.53

x 4

Which size bottle is the best value for money?

You must show all your working.

2 4 6
0.6 1.2 1.8 2.4 3 3.6 4.2 4.8 5.4 6
1.5 3 4.5 6

$$£1.99 \times 3 = £5.97$$

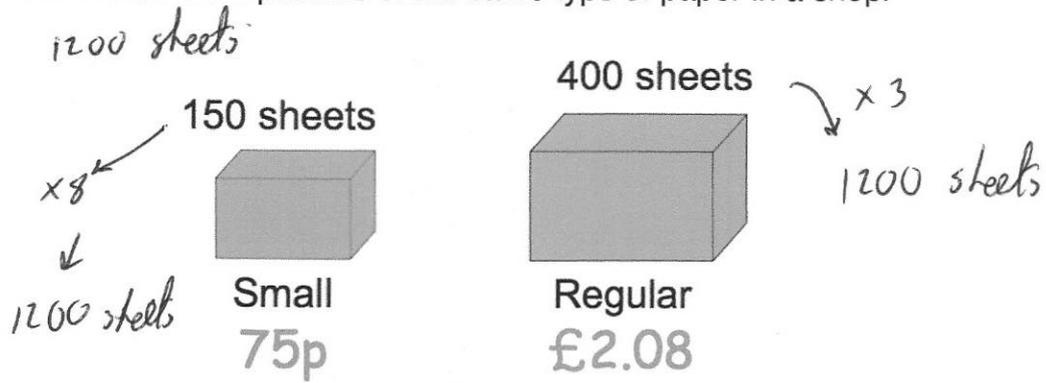
$$62p \times 10 = £6.20$$

$$£1.53 \times 4 = £6.12$$

The two litre bottle is best value.

(3)

13. There are two different packets of the same type of paper in a shop.



Which of the two packets gives the better value for money?
You must show your working.

$$75p \times 8 = £6$$

$$£2.08 \times 3 = £6.24$$

The small packet is better value.

(4)

14. Bramley apples cost £4.60 for a 3kg bag at Supervalve supermarket.
The same type of apples cost £11.40 for a 7.5kg bag at Nixon's supermarket.



Where are the apples the best value for value?
You must show your working.

$$4.60 \div 3 = £1.5333... \text{ per kg} - \text{Supervalve}$$

$$11.40 \div 7.5 = £1.52 \text{ per kg} - \text{Nixon's}$$

Nixon's is better value.

(4)

15. A supermarket sells Baked Beans in two different size cans.



215g

40p



395g

74p

Which size can is the best value for money?
You must show all your working.

$$40 \div 215 = 0.186 \text{ p per gram.}$$

$$74 \div 395 = 0.187 \text{ p per gram.}$$

The 215g can is better value.

(4)

16. A shop sells the same brand of washing powder in 3 different sized boxes.



Small Box	Standard Box	Family Box
900g for £2.52	2.25kg for £6.03	4kg for £10.90

- (a) Which box is the best value for money?
You must show your working.

Small : $252 \div 900 = 0.28 \text{ p per gram}$

Standard : $603 \div 2250 = 0.268 \text{ p per gram}$

Family : $1090 \div 4000 = 0.2725 \text{ p per gram}$

The standard box is better value than the other two options

(4)

- (b) Explain why a customer may choose to buy a pack which is not best value for money.

e.g. They may not have enough money (e.g. £5)

e.g. They may only need a small amount, for example going on holiday to a caravan site.

(1)

17. Two hardware stores sell lightbulbs.



Home World
6 lightbulbs
WAS £30
NOW 15% off

Oklahoma DIY
lightbulbs - £6.50
Buy 2 get 1 free

Nicole wants to buy 42 lightbulbs.

At which hardware store is it cheaper for Nicole to buy the lightbulbs?
You must show your working.

Home World $7 \times 6 = 42$

$$7 \times £30 = £210$$

$$10\% \rightarrow 21$$

$$5\% \rightarrow 10.50$$

$$\underline{31.50}$$

$$210 - 31.50 = £178.50$$

Oklahoma DIY buy 28 get 14 free (42 in total)

$$28 \times 6.50 = £182$$

Home World is cheaper.

(4)

18. A supermarket sells cashew nuts in 200g packets and 500g packets. They have two offers on the cashew nuts.



200g

5 packets for £9.80

500g

3 packets for £14.75

Which offer is better value for money?
You must show your working.

200g

$$5 \times 200g = 1000g \\ \text{or } 1kg$$

$$9.8 \div 1 = \pounds 9.80 \text{ per kg}$$

500g

$$3 \times 500g = 1500g \\ \text{or } 1.5kg$$

$$14.75 \div 1.5 = \pounds 9.833... \text{ per kg}$$

The 5 packets of 200g cashews is better value.

(4)

19. Candles normally cost £6 each.
Two websites have special offers



Corbettmaths Candles

Buy 3 get 1 free

Candles'R'us

20% off

Laura wants to buy 30 candles.
Which website should Laura use?

Corbettmaths Candles

buy 21 and get 7 free
then buy 2 more.

$$23 \times 6 = \underline{\underline{£138}}$$

Candles'R'Us

$$30 \times 6 = £180$$

$$10\% \rightarrow £18$$

$$20\% \rightarrow £36$$

$$180 - 36 = \underline{\underline{£144}}$$

She should use Corbettmaths Candles.

(4)

20. Two shops sell the same type of perfume.
A 100ml bottle of perfume normally costs £40.



Shop A

50% extra free



Only £40

150ml for £40

Shop B

Buy one get the second
HALF PRICE



Normal price £40
for 100ml

200ml for £60

Rebecca says that both offers give the same value for money.
Is she correct? Show your working.

Shop A

150 ml for £40

$$4000 \div 150 = 26.66\dots p \text{ per ml}$$

Shop B

200ml for £60

$$6000 \div 200 = 30 p \text{ per ml}$$

No, shop A is better value.

(5)

21. In England, a 10 mile train journey costs £6.40
 In Ireland, a 20km train journey costs €10.85

$\times 1.4$
 $\rightarrow \text{€}8.96$

At the time £1 = €1.40

Which train journey is better value?

1 mile \approx 1.6km

England

16km for £8.96
 $\div 16$ $\div 16$
 1km for €0.56

Ireland

20km for €10.85
 $\div 20$ $\div 20$
 1km for €0.5425

The train journey is better value in Ireland.

(4)

22. A company normally makes 200g bars of chocolate.



As the cost of the ingredients has increased, the company are planning to either:

Option 1 - increase the price of the bar by 20%

Option 2 - keep the price the same but reduce the amount of chocolate by 30%

Work out which option gives better value for their customers.
 Explain your answer.

10% \rightarrow 20g
 30% \rightarrow 60g

Let cost equal £1

Option 1 : 200g for £1.20
 $120 \div 200 = 0.6p$ per g

Option 2 : 140g for £1
 $100 \div 140 = 0.714...$ p per g

Option 1 is better value for the customers.

If the bar originally cost £1, it would be 0.5p per g.

Option 1 increases it to 0.6p per g, whereas Option 2 increases it to 0.714... p per g.

(4)