

## Best Buy

Best Buy problems can be dealt with in lots of different ways, using the idea of scaling up and down. Whenever buying twice as much costs you twice as much, you can use this idea to identify best value.

Section A:	Section B:	Section C:
Making the <b>quantity</b> the same	Making the <b>price</b> the same	Finding <b>price per item/kg</b>
If you <b>buy the same amount</b> of two different products, whichever would <b>cost the least money</b> is best value for money.	If you <b>spend the same amount</b> on two different products, whichever <b>gets you the most stuff</b> is best value for money.	If you <b>convert</b> all your prices to their <b>cost per item</b> or <b>cost per kilo</b> , etc, the lowest of these is best value for money.

### Section A: Making the quantity the same

*One way to compare the value for money of different products is to imagine you are buying the same quantity of each, then look for the cheapest price.*

1. Sam always buys small packets, Mary buys medium and Luke buys large.

Small	Medium	Large
		
£1.60 for 250g	£2.80 for 0.5kg	£5 for 1kg

**Sam says "I spend less than Mary, so I'm getting the best value for money."**

**Mary says "I get more butter than Sam, so I'm getting the best value."**

*Neither are completely right. Sam ignored the amount & Mary ignored the price. Can you give a **short, simple explanation** that shows who is getting better value?*

2. Sam, Mary and Luke each buy 1kg of butter for the month.

How much does each one spend in total?

Sam buys \_\_\_\_\_ 250g packet(s) for £\_\_\_\_\_ each:      Total cost: £\_\_\_\_\_

Mary buys \_\_\_\_\_ 500g packet(s) for £\_\_\_\_\_ each:      Total cost: £\_\_\_\_\_

Luke buys \_\_\_\_\_ 1000g tub(s) for £\_\_\_\_\_ each:      Total cost: £\_\_\_\_\_

The person who gets the best value for money is: \_\_\_\_\_.

## Section B: Making the price the same

One way to compare the value for money of different products is to imagine you are spending the same amount, then compare the quantity you get.

1. Suzy regularly buys small chickens and Lucy regularly buys large chickens.

Small Chicken	Large Chicken
 <p data-bbox="293 725 587 766">1.5kg for £6</p>	 <p data-bbox="976 725 1286 766">2.5kg for £12</p>

One week, they both spend **exactly £12** on chicken.

What is the total amount of chicken (in kg) that each will get?

Suzy buys \_\_\_\_ small chicken(s) for £12. Total weight: \_\_\_\_ kg

Lucy buys \_\_\_\_ large chicken(s) for £12. Total weight: \_\_\_\_ kg

The size that gives the best value for money is: \_\_\_\_\_

2. The head of a school orders bananas for the staff room every Friday.

He can choose from the following options (bananas are all the same size):

Loose	Bagged	Organic
 <p data-bbox="124 1816 515 1856">8 bananas for £1</p>	 <p data-bbox="560 1816 1026 1856">12 bananas for £1.80</p>	 <p data-bbox="1054 1816 1505 1856">6 bananas for £0.80</p>

He buys 48 bananas a week. Fill in the gaps:

48 loose bananas cost: £ _____	48 bagged bananas cost: £ _____	48 organic bananas cost: £ _____
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The best value bananas are \_\_\_\_\_. The worst value bananas are \_\_\_\_\_.

**Section C:** Calculating the cost per kilo (or per 100g, per item, etc)

The best general method (especially for comparing lots of items) involves dividing the cost by the quantity. This tells you how much 1 item (or 1 kilo) costs.

1. Divide the cost (in pence) by the number of nappies to work out the cost per nappy for each of these three options, and decide which is the cheapest:

Asda	Amazon	Boots
		
23 nappies for £4.00	174 nappies for £20.06	16 nappies for £2.74
___ pence per nappy	___ pence per nappy	___ pence per nappy

The best value nappies are \_\_\_\_\_ at a cost of \_\_\_\_\_ pence per nappy.

2. Calculate the **cost per 100g** for each of the packets of cornflakes below. Divide the cost (in pence) by the number of grams, then  $\times$  by 100 to give the pence per 100g. Round your answers to 1 d.p. The first one is done for you.

Tiny	Small	Medium	Large
			
£1.59 for 250g	£1.98 for 0.5kg	£2.40 for 0.75kg	£3.29 for 1kg

Tiny: 159p for 250g  $\Rightarrow$  pence per gram:  $159 \div 250 = 0.636$   
 $0.636 \times 100 = 63.6p$  per 100g

Small:

Medium:

Large:

Best value for money is: \_\_\_\_\_ at a cost of \_\_\_\_\_ pence per 100g.

## Best Buy SOLUTIONS

Best Buy problems can be dealt with in lots of different ways, using the idea of scaling up and down. Whenever buying twice as much costs you twice as much, you can use this idea to identify best value.

Section A:	Section B:	Section C:
Making the <b>quantity</b> the same	Making the <b>price</b> the same	Finding <b>price per item/kg</b>
If you <b>buy the same amount</b> of two different products, whichever would <b>cost the least money</b> is best value for money.	If you <b>spend the same amount</b> on two different products, whichever <b>gets you the most stuff</b> is best value for money.	If you <b>convert</b> all your prices to their <b>cost per item</b> or <b>cost per kilo</b> , etc, the lowest of these is best value for money.

### Section A: Making the quantity the same

*One way to compare the value for money of different products is to imagine you are buying the same quantity of each, then look for the cheapest price.*

1. Sam always buys small packets, Mary buys medium and Luke buys large.

Small	Medium	Large
		
£1.60 for 250g	£2.80 for 0.5kg	£5 for 1kg

Sam says "I spend less than Mary, so I'm getting the best value for money."

Mary says "I get more butter than Sam, so I'm getting the best value."

*Neither are completely right. Sam ignored the amount & Mary ignored the price.*

Can you give a **short, simple explanation** that shows who is getting better value?

**If they both bought 0.5kg, Sam would need 2 packets at £3.20 (more than Mary).**

2. Sam, Mary and Luke each buy 1kg of butter for the month.

How much does each one spend in total?

Sam buys **four** 250g packet(s) for **£1.60** each:

Total cost: **£6.40**

Mary buys **two** 500g packet(s) for **£2.80** each:

Total cost: **£5.60**

Luke buys **one** 1000g tub(s) for **£5.00** each:

Total cost: **£5.00**

The person who gets the best value for money is: **Luke**.



## Section B: Making the price the same

One way to compare the value for money of different products is to imagine you are spending the same amount, then compare the quantity you get.

1. Suzy regularly buys small chickens and Lucy regularly buys large chickens.

Small Chicken	Large Chicken
	
1.5kg for £6	2.5kg for £12

One week, they both spend **exactly £12** on chicken.

What is the total amount of chicken (in kg) that each will get?

Suzy buys **two** small chicken(s) for £12. Total weight: **3kg**

Lucy buys **one** large chicken(s) for £12. Total weight: **2.5kg**

The size that gives the best value for money is: **Small**.

2. The head of a school orders bananas for the staff room every Friday.

He can choose from the following options (bananas are all the same size):

Loose	Bagged	Organic
		
8 bananas for £1	12 bananas for £1.80	6 bananas for £0.80

He buys 48 bananas a week. Fill in the gaps:

48 loose bananas cost: <b>£6.00</b>	48 bagged bananas cost: <b>£7.20</b>	48 organic bananas cost: <b>£6.40</b>
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The best value bananas are **Loose**. The worst value bananas are **Bagged**.

## Section C: Calculating the cost per kilo (or per 100g, per item, etc)

The best general method (especially for comparing lots of items) involves dividing the cost by the quantity. This tells you how much 1 item (or 1 kilo) costs.

1. Divide the cost (in pence) by the number of nappies to work out the cost per nappy for each of these three options, and decide which is the cheapest:

Asda	Amazon	Boots
		
23 nappies for £4.00	174 nappies for £20.06	16 nappies for £2.74

17.4 pence per nappy    11.5 pence per nappy    17.1 pence per nappy

The best value nappies are Amazon at a cost of 11.5 pence per nappy.

2. Calculate the **cost per 100g** for each of the packets of cornflakes below. Divide the cost (in pence) by the number of grams, then  $\times$  by 100 to give the pence per 100g. Round your answers to 1 d.p. The first one is done for you.

Tiny	Small	Medium	Large
			
£1.59 for 250g	£1.98 for 0.5kg	£2.40 for 0.75kg	£3.29 for 1kg

**Tiny:** 159p for 250g  $\Rightarrow$  pence per gram:  $159 \div 250 = 0.636$   
 $0.636 \times 100 = 63.6p$  per 100g

**Small:** 198p for 500g  $\Rightarrow$  pence per gram:  $198 \div 500 = 0.396$   
 $0.396 \times 100 = 39.6p$  per 100g

**Medium:** 240p for 750g  $\Rightarrow$  pence per gram:  $240 \div 750 = 0.32$   
 $0.32 \times 100 = 32p$  per 100g

**Large:** 329p for 1000g  $\Rightarrow$  pence per gram:  $329 \div 1000 = 0.329$   
 $0.329 \times 100 = 32.9p$  per 100g

Best value for money is: Medium at a cost of 32 pence per 100g.