

## COMPARING COSTS - PRACTICE QUESTIONS



1.  
Mike is shopping for a laptop.  
He sees adverts from two shops.

Computer World
Laptops £300 each + VAT at 20%

PC Planet
Laptops £380 with a discount of 15%

Which shop sells the laptop at the cheapest price?

$$\text{Computer World: } 20\% \text{ of } 300 = \underline{\underline{60}}$$
$$300 + 60 = \underline{\underline{360}}$$

$$\text{PCP: } 15\% \text{ of } \pounds 380 = \underline{\underline{57}}$$
$$\pounds 380 - 57 = \underline{\underline{323}}$$

PC Planet is cheaper.

2.  
Naomi needs to buy 10 bottles of wine for a party.  
She sees adverts from three supermarkets.

Didl
Bottles of wine £2.15 each

Cesto
5 bottles of wine for £12

Adli
10 bottles of wine for £22

Which supermarket sells 10 bottles of wine at the cheapest price?

$$\text{Didl: } 10 \times 2.15 = \underline{\underline{21.50}}$$

$$\text{Cesto: } 12 \times 2 = \underline{\underline{24}}$$

$$\text{Adli: } \underline{\underline{22}}$$

Didl is cheapest.

3.  
Oscar is shopping for a table and four chairs for his dining room.  
He sees adverts from two shops with different offers.

Q & B
Tables £15 each Chairs £3.50 each

FDS
Special offer: Table and 4 chairs for £42

Which shop is cheaper?

$$\text{Q\&B: } 3.50 \times 4 = \underline{\underline{14}}$$

$$14 + 15 = \underline{\underline{29}}$$

$$\text{FDS: } \underline{\underline{42}}$$

Q & B is cheapest.

4.

Penny is looking for a maths tutor for her 12-year-old daughter.  
She sees two adverts.

**Dan The Maths Man**

£25 per hour  
Discount of 25% for under-16s

**Groovy Tutors**

£18 per hour  
+ VAT at 20%

Which is cheaper?

Dan: 25% of £25 = £6.25

$25 - 6.25 = \underline{\underline{£18.75}}$

Groovy Tutors: 20% of £18 = £3.60

$18 + 3.60 = \underline{\underline{£21.60}}$

Dan The Maths Man is cheapest.

5.

Ralph is buying dog food for his dog, Sandy.  
He wants to buy a week's worth of dog food.  
Sandy needs 2 tins of dog food each day.  
Ralph sees two adverts.

**Pampered Pooches**

Tins of dog food £1.20 each  
Sale: 7 tins for the price of 6

**PetZone**

Dog food: Pack of 14 tins for £15

Which shop is cheaper?

Pampered Pooches: 6 tins =  $6 \times 1.20 = £7.20$

12 tins = £14.40

PetZone = £15

Pampered Pooches is cheapest.

6.

Tammy is shopping for biros for her office.  
She wants to buy 100 biros.  
She sees two adverts online.

<p><b>Stationery Shop</b></p> <p>Biros 52p each Free postage and packing for orders over £50</p>
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<p><b>Biros Online</b></p> <p>Biros £0.90 each Half price if buying more than 50 Postage and packing £7.50</p>
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Which shop is cheaper?

$$\begin{aligned}SS: 52 \times 100 &= 5200 \text{ p} \\ &= \underline{\underline{£52}}\end{aligned}$$

$$\begin{aligned}BO: 0.90 \times 100 &= £90 \\ 90 \div 2 &= £45 \\ 45 + 7.50 &= \underline{\underline{£52.50}}\end{aligned}$$

stationery shop is cheapest.

7.

Ursula is shopping for a sofa online.  
She sees two adverts.

<p><b>Super Sofas</b></p> <p>Sofas £150 each Sale price: 15% off Free delivery</p>
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<p><b>The Furniture Store</b></p> <p>Sofas £110 each Delivery charge of £12.50</p>
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Which shop is cheaper?

$$\begin{aligned}\text{Super Sofas: } 15\% \text{ of } £150 &= £22.50 \\ 150 - 22.50 &= \underline{\underline{£127.50}}\end{aligned}$$

$$\begin{aligned}\text{Furniture store: } 110 + 12.50 \\ &= \underline{\underline{£122.50}}\end{aligned}$$

The Furniture Store is cheapest.

8.

Imogen is shopping for soil for her garden.  
She sees two adverts.

<p><b>Graham's Garden Shop</b></p> <p>Bags of soil (3kg) £4.40 each</p> <p>Offer: 5% off when you spend £40</p>
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<p><b>MegaMart</b></p> <p>Bags of soil (1kg) £2.10 each</p> <p>Bags of soil (5kg) £7.50 each</p>
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Imogen needs 27 kg of soil for her garden.  
Which shop is cheaper?

GGs:  $27 \div 3 = 9$  bags needed  
 $9 \times 4.40 = \underline{\underline{£39.60}}$

MM:  $5 \times 5 \text{ kg bags} = 25 \text{ kg}$   
 $2 \times 1 \text{ kg bags} = 2 \text{ kg} +$   
 $27 \text{ kg.}$

$7.50 \times 5 = £37.50$   
 $2.10 \times 2 = \underline{\underline{£4.20}}$  +

£41.70

Graham's Garden Shop is cheapest.

9.

John is looking for a printing company to print 3,000 leaflets.  
He sees two adverts.

<p><b>Printing Paradise</b></p> <p>Colour prints 98p per leaflet</p> <p>Black &amp; white prints 39p per leaflet</p>
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<p><b>Ink Inc.</b></p> <p>All prints 89p per leaflet</p> <p>Special offer: 15% off</p>
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John needs to print 1,000 leaflets in black and white, and the other 2,000 in colour.  
Which company is cheaper?

PP: B&W =  $39 \times 1,000 = 39,000 \text{p}$   
 $= \underline{\underline{£390}}$

Colour =  $98 \times 2,000 = 196,000 \text{p}$   
 $= \underline{\underline{£1960}}$

$390 + 1960 = \underline{\underline{£2,350}}$

II:  $89 \times 3,000 = 267,000$   
 $= \underline{\underline{£2,670}}$

15% of 2670 =  $\underline{\underline{£400.50}}$

$2,670 - 400.50 =$

£2,269.50

Ink. Inc. is cheapest.

10.

Kylie is baking cakes for an event.  
She needs 40 eggs.  
She sees two adverts.

**Prince Farm Shop**

Large pack (12 eggs) £3.60 each  
Small pack (6 eggs) £2.50 each

**Murrison's**

Large pack (15 eggs) £4.20  
Small pack (8 eggs) £2.60

Which shop is cheaper?

PFS: Large pack is best value for money.

3 Large = 36 eggs  
1 small = 6 eggs +  
42 eggs.

$3 \times 3.60 = \text{£}10.80$   
 $1 \times 2.50 = \text{£}2.50$

$10.80 + 2.50 = \underline{\text{£}13.30}$

M: Large pack is best value for money

3 Large = 45 eggs

$3 \times 4.20 = \underline{\text{£}12.60}$

Murrison's is cheapest.

11.

Lewis is looking for a plumber to fix his kitchen.  
He sees two adverts.

**Paul The Plumber**

£40 per hour + VAT at 20%  
+ call-out charge of £45

**Handyman Hans**

£160 for 5 hours  
+ £50 for each additional hour  
+ call-out charge of £60

Paul says the job will take 6 hours.

Hans says the job will take 7 hours.

Who is cheaper?

Paul: 20% of 40 = £8  
 $40 + 8 = \text{£}48$  per hour  
 $48 \times 6 = \text{£}288$   
 $288 + 45 = \underline{\text{£}333}$

Hans: 5 hours = £160  
6 hours =  $160 + 50 = \text{£}210$   
7 hours =  $210 + 50 = \text{£}260$   
 $260 + 60 = \underline{\text{£}320}$

Handyman Hans is cheapest.

12.

Mary wants a Chinese takeaway.

She wants Sweet and Sour Chicken with Egg Fried Rice delivered.

She sees two adverts.

Beijing Palace
Sweet and Sour Chicken £6.60 Egg Fried Rice £2.10
Free delivery if within 5 miles Delivery £5 if more than 5 miles

China Garden
Sweet and Sour Chicken £5.95 Egg Fried Rice £2.15
Delivery £1.35 per mile

Mary lives 7 miles from Beijing Palace and 4 miles from China Garden.

Which takeaway is cheaper?

$$\begin{aligned} \text{BP: } & 6.60 + 2.10 = \text{£}8.70 \\ & 8.70 + 5 = \underline{\text{£}13.70} \end{aligned}$$

$$\begin{aligned} \text{CG: } & 5.95 + 2.15 = \text{£}8.10 \\ \text{Delivery: } & 4 \times \text{£}1.35 = \text{£}5.40 \\ & 8.10 + 5.40 = \underline{\text{£}13.50} \end{aligned}$$

China Garden is cheapest.

13.

Nathan is buying cricket equipment for his cricket club.

He needs 5 bats, 30 balls and 5 helmets – to be delivered.

He sees two adverts.

Sports Online
10 balls for £25 Bats £65 each Helmets £15 each
+ VAT at 20% Free delivery for orders over £500

Christopher's Cricket Shop
Balls £3 each Bats £55 each Helmets £13 each
Delivery £3 per £10 spent

Which is cheaper?

$$\begin{aligned} \text{SO: Balls: } & \text{£}25 \times 3 = \text{£}75 \\ \text{Bats: } & \text{£}65 \times 5 = \text{£}325 \\ \text{Helmets: } & \text{£}15 \times 5 = \text{£}75 \\ & 325 + 75 + 75 = \text{£}475 \\ & 20\% \text{ of } 475 = \text{£}95 \\ & 475 + 95 = \underline{\text{£}570} \end{aligned}$$

$$\begin{aligned} \text{CCS: Balls: } & \text{£}3 \times 30 = \text{£}90 \\ \text{Bats: } & \text{£}55 \times 5 = \text{£}275 \\ \text{Helmets: } & \text{£}13 \times 5 = \text{£}65 \\ & 90 + 275 + 65 = \text{£}430 \\ \text{Delivery: } & 430 \div 10 = 43 \times \text{£}3 \\ & = \text{£}129 \\ & 430 + 129 = \underline{\text{£}559} \end{aligned}$$

Christopher's Cricket Shop is cheapest.