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?

*Computer World: 20% of 300 = £60
300 + 60 = £360
PC Planet: 15% of 380 = £57
380 - 57 = £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?

*Didl: 10 x 2.15 = £21.50
Cesto: 12 x 2 = £24
Adli: £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?

*Q & B: 3.50 x 4 = £14
14 + 15 = £29
FDS: £42

Q & B is cheapest.
4. Penny is looking for a maths tutor for her 12-year-old daughter. She sees two adverts.

<table>
<thead>
<tr>
<th>Dan The Maths Man</th>
<th>Groovy Tutors</th>
</tr>
</thead>
<tbody>
<tr>
<td>£25 per hour</td>
<td>£18 per hour + VAT at 20%</td>
</tr>
<tr>
<td>Discount of 25% for under-16s</td>
<td></td>
</tr>
</tbody>
</table>

Which is cheaper?

Dan: 25% of £25 = £6.25
25 - 6.25 = £18.75

Groovy Tutors: 20% of £18 = £3.60
18 + 3.60 = £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.

<table>
<thead>
<tr>
<th>Pampered Pooches</th>
<th>PetZone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tins of dog food £1.20 each</td>
<td>Dog food: Pack of 14 tins for £15</td>
</tr>
<tr>
<td>Sale: 7 tins for the price of 6</td>
<td></td>
</tr>
</tbody>
</table>

Which shop is cheaper?

Pampered Pooches: 6 tins = 6 x £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.

- **Stationery Shop**
  - Biros 52p each
  - Free postage and packing for orders over £50

- **Biros Online**
  - Biros £0.90 each
  - Half price if buying more than 50
  - Postage and packing £7.50

Which shop is cheaper?

**Stationery Shop**

\[
52 \times 100 = 5200 \text{p} = £52
\]

**Biros Online**

\[
80: 0.90 \times 100 = £90
90 \div 2 = £45
45 + 7.50 = £52.50
\]

- Stationery Shop is cheapest.

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

- **Super Sofas**
  - Sofas £150 each
  - Sale price: 15% off
  - Free delivery

- **The Furniture Store**
  - Sofas £110 each
  - Delivery charge of £12.50

Which shop is cheaper?

**Super Sofas**

\[
15\% \ of \ £150 = \£22.50

150 - 22.50 = \£127.50
\]

**The Furniture Store**

\[
110 + 12.50 = \£122.50
\]

- The Furniture Store is cheapest.
8. Imogen is shopping for soil for her garden. She sees two adverts.

<table>
<thead>
<tr>
<th><strong>Graham’s Garden Shop</strong></th>
<th><strong>MegaMart</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bags of soil (3kg) £4.40 each</td>
<td>Bags of soil (1kg) £2.10 each</td>
</tr>
<tr>
<td>Offer: 5% off when you spend £40</td>
<td>Bags of soil (5kg) £7.50 each</td>
</tr>
</tbody>
</table>

Imogen needs 27 kg of soil for her garden. Which shop is cheaper?

\[
\begin{align*}
\text{GGS: } 27 \div 3 &= 9 \text{ bags needed} \\
9 \times 4.40 &= \£39.60 \\
\text{MM: } 5 \times 5 \text{kg bags} &= 25 \text{kg} \\
2 \times 1 \text{kg bags} &= \frac{2}{27} \text{kg} \\
7.50 \times 5 &= \£37.50 \\
2.10 \times 2 &= \£4.20 \\
&= \£41.70
\end{align*}
\]

Graham’s Garden Shop is cheapest.

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

<table>
<thead>
<tr>
<th><strong>Printing Paradise</strong></th>
<th><strong>Ink Inc.</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour prints 98p per leaflet</td>
<td>All prints 89p per leaflet</td>
</tr>
<tr>
<td>Black &amp; white prints 39p per leaflet</td>
<td>Special offer: 15% off</td>
</tr>
</tbody>
</table>

John needs to print 1,000 leaflets in black and white, and the other 2,000 in colour. Which company is cheaper?

\[
\begin{align*}
\text{PP: } B&W &= 39 \times 1,000 = 39,000p \\
&= \£390 \\
\text{Colour} &= 98 \times 2,000 = 196,000p \\
&= \£1960 \\
390 + 1960 &= \£2,350 \\
\text{II: } 89 \times 3,000 &= 267,000 \\
15\% \text{ of } 2670 &= 400.50 \\
2670 - 400.50 &= \£2,269.50
\end{align*}
\]

Ink, Inc. is cheapest.
10.
Kylie is baking cakes for an event.
She needs 40 eggs.
She sees two adverts.

<table>
<thead>
<tr>
<th>Prince Farm Shop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large pack (12 eggs) £3.60 each</td>
</tr>
<tr>
<td>Small pack (6 eggs) £2.50 each</td>
</tr>
</tbody>
</table>

Which shop is cheaper?

**PFS:** Large pack is best value for money.
3 Large = 36 eggs
1 small = 6 eggs +
    42 eggs
3 x 3.60 = £10.80
1 x 2.50 = 2.50
10.80 + 2.50 = £13.30

**Murrison’s**
Large pack (15 eggs) £4.20
Small pack (8 eggs) £2.60
3 Large = 45 eggs
3 x 4.20 = £12.60
Murrison’s is cheapest.

11.
Lewis is looking for a plumber to fix his kitchen.
He sees two adverts.

<table>
<thead>
<tr>
<th>Paul The Plumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>£40 per hour + VAT at 20%</td>
</tr>
<tr>
<td>+ call-out charge of £45</td>
</tr>
</tbody>
</table>

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 = £48 per hour
48 x 6 = £288
288 + 45 = £333

**Hans:**
5 hours = £160
6 hours = 160 + 50 = £210
7 hours = 210 + 50 = £260
260 + 60 = £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.

<table>
<thead>
<tr>
<th>Beijing Palace</th>
<th>China Garden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweet and Sour Chicken £6.60</td>
<td>Sweet and Sour Chicken £5.95</td>
</tr>
<tr>
<td>Egg Fried Rice £2.10</td>
<td>Egg Fried Rice £2.15</td>
</tr>
<tr>
<td>Free delivery if within 5 miles</td>
<td>Delivery £1.35 per mile</td>
</tr>
<tr>
<td>Delivery £5 if more than 5 miles</td>
<td></td>
</tr>
</tbody>
</table>

Mary lives 7 miles from Beijing Palace and 4 miles from China Garden. Which takeaway is cheaper?

\[
\text{BP: } 6.60 + 2.10 = £8.70 \\
8.70 + 5 = £13.70
\]
\[
\text{CG: } 5.95 + 2.15 = £8.10 \\
\text{Delivery: } 4 \times £1.35 = £5.40 \\
8.10 + 5.40 = £13.50
\]

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.

<table>
<thead>
<tr>
<th>Sports Online</th>
<th>Christopher's Cricket Shop</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 balls for £25</td>
<td>Balls £3 each</td>
</tr>
<tr>
<td>Bats £65 each</td>
<td>Bats £55 each</td>
</tr>
<tr>
<td>Helmets £15 each</td>
<td>Helmets £13 each</td>
</tr>
<tr>
<td>+ VAT at 20%</td>
<td></td>
</tr>
<tr>
<td>Free delivery for orders over £500</td>
<td>Delivery £3 per £10 spent</td>
</tr>
</tbody>
</table>

Which is cheaper?

\[
\text{SO: Balls: } 25 \times 3 = £75 \\
\text{Bats: } 65 \times 5 = £325 \\
\text{Helmets: } 15 \times 5 = £75 \\
325 + 75 + 75 = £475 \\
20\% \text{ of } 475 = £95 \\
475 + 95 = £570
\]
\[
\text{CCS: Balls: } 3 \times 30 = £90 \\
\text{Bats: } 55 \times 5 = £275 \\
\text{Helmets: } 13 \times 5 = £65 \\
90 + 275 + 65 = £430 \\
\text{Delivery: } 430 \div 10 = 43 \times 3 = £129 \\
430 + 129 = £559
\]

Christopher's Cricket Shop is cheapest.