

2

Broadening horizons



My name is Carole and this is my family. We like to go on camping holidays. We take our car and tent to campsites in England and France. We have two teenage children. They especially enjoy camping in France. We have to take a lot of things. We also need to plan how much money to take. Some things are cheaper in France and some are more expensive.

Talk about it

Have you been to another country?

Do you know where you can buy foreign currency?

Do you know what currency is used in most European countries?

Have you used any currencies other than pounds? What was it? Where was it from?

Do you know how to convert from one currency to another?

Do you know what prices are like in any mainland European country?

Do you know how much petrol costs in mainland Europe?

These are the skills you will practise in this unit.

Which are the most useful for you? Tick the boxes.

- ☐ Calculating money and converting between currencies
- ☐ Using decimals to compare prices
- ☐ Using percentages to compare costs and work out commission
- ☐ Using a calculator

Skill code

MSS1/L2.1

N2/L2.5

N2/L2.7, 8, 9

N2/L2.10

How much will the money cost?

Since January 2002, France has used the euro (€). I wanted to buy some euros so I had to find out where I can buy foreign currency.

You can buy foreign currency in a bank, building society, post office, travel agent or from a bureau de change.



Activity 1

The cost of buying foreign currency is not the same in every bank. It pays to look around for the best deal.

Comparing decimals

When you want to compare long decimal numbers, rearrange the numbers in order of size. Arrange these three numbers in order of size, starting with the smallest.

284.86, 276.78, 315.54

To do this, compare the values of the digits with the same place value column.

Start with the largest place value (hundreds in this example).

Pick out the smallest value (2).

If there is more than one of the same value compare the digits in the next place value column (tens in this example).

Pick out the smaller value (7).

Continue until all comparisons have been made.

2 8 4 . 8 6

2 7 6 . 7 8

3 1 5 . 5 4

Original numbers

2 7 6 . 7 8

2 8 4 . 8 6

3 1 5 . 5 4

Numbers in order of size

Here are quotes for the cost of €700 from four different providers.

Provider	Amount
Action Bank	£474.32
Supercash	£463.32
Best Bank	£476.16
Savings Bank	£467.88

Provider	Amounts in order of size
Supercash	£463.32

- In the table write the amounts in order of size. Start with the cheapest. Remember the cheapest is the lowest value. The most expensive is the highest value. The cheapest quote was £463.32.
- The most expensive quote was £
- The difference was = £

Activity 2

Rearrange the cost of buying €700 in order of size. Start with the most expensive.

Amount (€)	Cost (£)	City
€700	£461.47	Belfast
€700	£469.42	Brighton
€700	£472.97	Bristol
€700	£461.44	Manchester
€700	£479.19	Newcastle
€700	£465.66	Oxford

Cost	City

I found that the cost of currency is not the same in all cities.

- The most expensive city was
- The cheapest city was
- The greatest difference in price was - = £

Activity 3

Many places charge a fixed percentage fee to change money. This is called a **commission** charge.

	Commission
Roman Bank	2%
Western Bank	1.5%
City Bank	2.0%
Penny Bank	1.0%

I have worked out how much it will cost me to change £150 at Roman Bank.

Changing £150.00 at Roman Bank will cost
 $£150.00 + £3.00 = £153.00$.

- Changing £150 at Western Bank will cost
- Changing £150 at City Bank will cost
- Changing £150 at Penny Bank will cost
- The cheapest bank to change money is
- The most expensive bank to change money is

Remember

Finding a percentage of a number

The words 'per cent' mean 'in every hundred'.
 Use a calculator to find 2% of £150.00.

Enter: $2 \div 100 \times 150 =$
 the calculator display shows 3
2% of £150.00 = £3.00

or without a calculator

1% of £150.00 = £1.50 (divide by 100),
2% of £150.00 = $2 \times £1.50 = £3$

Review

Do you need more practice in comparing decimals?

Yes ☐

No ☐

For more work on this, go to H1 and H2 (page 13).

This work links to mini-project M1 (page 16).

Money changing

I want to work out how much money I will get. I need to know how to convert between currencies.



Activity 4

Most countries in Europe use the same currency – the euro.

Currency conversion: pounds to euros

To change from one currency to another you need to know the exchange rate for that day. On 24/08/02 the pound (£) to euro (€) exchange rate was **£1 = €1.59** (or 1€ and 59 cents).

Convert from £ to € like this.

Check your calculation by dividing by €1.59.

$$£1 = 1 \times 1.59 = €1.59$$

$$€1.59 \div €1.59 = £1$$

$$£2 = 2 \times 1.59 = €3.18$$

$$€3.18 \div €1.59 = £2$$

$$£3 = 3 \times 1.59 = €4.77$$

$$€4.77 \div €1.59 = £3$$

So multiply the number of pounds (£) by the exchange rate.

1 $£25 = 25 \times 1.59 = \dots\dots\dots$

Check: $\dots\dots\dots \div €1.59 = £25$

2 $£50 = 50 \times 1.59 = \dots\dots\dots$

Check: $\dots\dots\dots$

Activity 5

We made this ready reckoner to help us to convert from pounds to euros.

Pound (£)	Euro (€)
1	1.59
2	3.18
3	
4	
5	7.95
6	9.54
7	11.13
8	12.72
9	

Pound (£)	Euro (€)
10	
15	23.85
20	31.80
25	
30	47.70
35	
40	63.60
45	71.55
50	

Complete the ready reckoner.

When in France we want to compare French prices with English prices. To be able to compare prices we need to convert from euros to pounds.

Activity 6

Currency conversion: euros to pounds

On 12/09/02 the euro (€) to pound (£) exchange rate was: **€1 = £0.63**

Convert from € to £ like this.

Check your calculation by dividing by £0.63.

$$€1 = 1 \times £0.63 = £0.63$$

$$£0.63 \div £0.63 = £1$$

$$€2 = 2 \times £0.63 = £1.26$$

$$£1.26 \div £0.63 = £2$$

$$€3 = 3 \times £0.63 = £1.89$$

$$£1.89 \div £0.63 = £3$$

The euro to pound exchange rate is given as €1 = £0.63.

- 1 €25 = $25 \times 0.63 =$ Check: $\div 0.63 =$ €
- 2 €50 = Check:
- 3 €20 = Check:
- 4 €275 = Check:

Activity 7

We made this ready reckoner to help us to convert from pounds to euros.

Euro (€)	Pound (£)
1	0.63
2	1.26
3	
4	
5	3.15
6	3.78
7	
8	5.04
9	5.67

Euro (€)	Pound (£)
10	
15	9.45
20	12.60
25	
30	18.90
35	
40	25.20
45	28.35
50	

Complete the ready reckoner.

Review

Do you need more practice in converting currency?

Yes ☐ No ☐

For more work on this, go to H3 and H4 (pages 13 and 14) or E1 (page 15).
This work links to mini-project M1 and M3 (page 16).

Pitching the tent

We compared the costs of several campsites to find the cheapest site.



Activity 8

Campsites charge for a pitch with 1 car, and for each person.

Campsite A	Low season	High season 29/07 – 24/08
Per person	€2.60	€3.60
Pitch with 1 car	€7.20	€10.20

I worked out the costs for campsite A.

Low season cost

4 people @ €2.60 = €10.40

Pitch + car = €7.20

Total cost €17.60

High season cost

4 people @ €3.60 = €14.40

Pitch + car = €10.20

Total cost €24.60

Work out the costs for campsite B and campsite C.

Campsite B	Low season	High season 29/07 – 24/08
Per person	€2.60	€3.95
Pitch with 1 car	€4.50	€8.70

1 Low season cost

4 people @

Pitch + car

Total cost

2 High season cost

4 people @

Pitch + car

Total cost

Campsite C	Low season	High season 29/07 – 24/08
Per person	€3.00	€4.20
Pitch with 1 car	€5.80	€8.20

3 Low season cost

4 people @

Pitch + car

Total cost

4 High season cost

4 people @

Pitch + car

Total cost

- 5 Arrange the campsites in order of cost to complete the table. Begin with the cheapest for the low season.

Campsite	Low season cost	High season cost

Are the high season costs for the campsites in the same order?

.....

Activity 9

It is cheaper to go on holiday in the low season. I want to work out the percentage I can save at each campsite.

Work out the difference in cost for campsite A.

High season price – low season price = €24.60 – €17.60 = €7.00

So I would save €7 out of the €24.60 I would pay during the high season.

Remember

Write this $\frac{7.00}{24.60} = 0.2845...$ (Leave the whole number on your calculator display.)

Change this to a percentage ($\times 100$) = 0.2845×100

= 28.45

= 28% to the nearest whole number

$$\begin{array}{r} 7.00 \\ 24.60 \\ \hline \end{array}$$

means $7.00 \div 24.60$

We would save 28% by camping at campsite A in the low season compared with the high season.

Work out the percentage savings for campsite B and campsite C.

1 Campsite B

High season price – low season price =

As a percentage of the high season price =

To the nearest whole number = %

2 Campsite C

High season price – low season price =

As a percentage of the high season price =

To the nearest whole number = %

- 3 The biggest percentage saving would be made at campsite

Review

Do you need more practice in using percentages?

Yes ☐ No ☐

For more work on this, go to E2 (page 15).

Bring or buy?

Activity 10

When we are camping we prepare our own meals.
Some groceries are cheaper in England so we try to take these with us. Other groceries are cheaper in French supermarkets.



We take breakfast cereals with us as they cost much more in France.

Product	Amount	Price in England (£)	% dearer in France	Price in France (£)	Price in France (€)
Kelloggs cornflakes	500g	£0.97	40%	£1.36	€2.16
Frosties	375g	£1.16	20%		
Heinz ketchup	570g	£0.69	69%		
Vegetable oil spread	500g	£0.59	88%		



Carole worked out the cost of Kelloggs Cornflakes with a calculator like this.
Cornflakes cost £0.97 in England. They are 40% more expensive in France.

Extra cost = 40% of £0.97 = $40 \div 100 \times 0.97 = £0.388$ (£0.39 to the nearest penny).

Price in France = original price + extra cost = £0.97 + £0.39 = £1.36.

Approximate price in euros = $1.36 \times 1.59 = €2.1624 = €2.16$ (to the nearest cent).

Carole's son, Winston, estimated the extra cost without using a calculator.

He did it like this:

£0.97 is about £1

10% of £1 = 10p

40% of £1 = $4 \times 10p$
= 40p

So the price in France should not be far off $£1 + 40p = £1.40$.

1 Work out the cost of Frosties in France using Carole's method.

Extra cost =

French price = original price + extra cost

Price in euros = \times = € = €

Check your answer in pounds (£) using Winston's method.

2 Work out the cost of Heinz ketchup in France using Carole's method.

Extra cost =

French price = original price + extra cost

Price in euros = = € = €

Tip

Use £1 = €1.59

- 3 Work out the cost of vegetable oil spread in France using Carole's method.
Check using Winston's method.

Extra cost =

French price = original price + extra cost

Price in euros = = € = €

Activity 11

Product	Amount	Price in England (£)	% cheaper in France	Price in France (£)	Price in France(€)
Butter	200g	£0.69	55%	0.31	0.22
Tomato soup	68g	£0.39	65%		
Spaghetti	500g	£0.49	22%		
Pasta sauce	400g	£1.45	44%		

Carole worked out the cost of butter like this.

Butter costs £0.69 in England. It is 55% cheaper in France.

Amount less = 55% of £0.69 = £0.345 + £0.0345 = £0.3795 = £0.38 (to nearest 1p).

French price = English price – amount less

£0.69 – £0.38 = £0.31

Tip

Use £1 = €1.59

- 1 Work out the cost of tomato soup in France.

Amount less =

French price = English price – amount less

Price in euros = × = € = €

- 2 Work out the cost of spaghetti in France.

Amount less =

French price = English price – amount less

Price in euros = × = € = €

- 3 Work out the cost of pasta sauce in France.

Amount less =

French price = English price – amount less

Price in euros = × = € = €

Review

Do you need more practice in working with currency conversions and percentage changes?

Yes ☐ No ☐

For more work on this, go to H5 (page 14).

This work links to mini-project M2 (page 16).

Counting the cost

Activity 12

The newspapers tell me that petrol prices are lower in France, but I want to check for myself.

I decided to look on the Internet for fuel prices in France.

4-star petrol prices

UK	France
79.5 pence	1.12 euros
	(6th Sept 2002)

Tip

Use £1 = €1.59



I want to work out what the **percentage saving** will be when I buy fuel in France.

- Change the UK price to euros.

$$79.5 \text{ pence} = \text{£}0.795$$

Price in euros = price in UK \times number of euros to a pound

$$= 0.795 \times 1.59 = \text{€}1.26405 = \text{€}1.26$$

- Find the price difference.

$$\text{Difference in price} = \text{UK price} - \text{French price} = \text{€}1.26 - \text{€}1.12 = \text{€}0.14$$

- Work out the percentage saving in France.

$$\begin{aligned} \text{Percentage saving} &= \frac{\text{amount saved (€)}}{\text{UK price (€)}} \times 100 \\ &= \frac{0.14}{1.26} \times 100 = 11.1111\% = 11.1\% \text{ (correct to 1 decimal place)} \end{aligned}$$

Carole will save 11% per litre if she buys 4-star petrol in France.

- 1 Complete the table and work out the percentage saving for each type of fuel.

	England (pence)	England (euros)	France (euros)	Difference	Percentage saving
4-star	79.5p	€1.26	€1.12	0.14	11.1%
Unleaded	76.8p		€1.04		
Diesel	77.5p		€0.78		

- 2 The largest percentage saving is for .

- 3 The smallest percentage saving is .

Activity 13

Petrol prices change very quickly. Here are the prices given on 28th September 2002.

Country	4-star	Unleaded	Diesel
France	€1.13	€0.90	€0.79
UK	79.5p	75.3p	76.6p

I want to work out the **percentage increase** when I buy 4-star fuel in the UK.

- Change the UK price to euros.

$$79.5 \text{ pence} = \text{£}0.795$$

$$0.795 \times 1.59 = \text{€}1.26405 = \text{€}1.26$$

- Find the price difference.

$$\text{Difference in price} = \text{UK price} - \text{French price} = \text{€}1.26 - \text{€}1.13 = \text{€}0.13$$

- Work out the percentage increase in the UK.

$$\begin{aligned} \text{Percentage increase} &= \frac{\text{amount extra (€)}}{\text{French price (€)}} \times 100 \\ &= \frac{0.13}{1.13} \times 100 = 11.5\% \text{ (correct to 1 decimal place)} \end{aligned}$$

It will cost 11.5% more per litre to buy 4-star petrol in the UK compared with buying it in France.

- Complete the table to work out the percentage increase for each type of fuel.

	England (pence)	England (euros)	France (euros)	Difference	Percentage increase
4-star	79.5p	€1.26	€1.13	€0.13	11.5%
Unleaded	75.3p		€0.90		
Diesel	76.6p		€0.79		

- The largest percentage increase is for .

- The smallest percentage increase is for .

Review

Do you need more practice in working with currency, using decimals and percentages?

Yes ☐ No ☐

For more work on this, go to H5 (page 14).

This work links to mini-project M4 (page 16).

Changing back

When we get to England we sell euros to the bank in exchange for pounds.

A bank, bureau de change or travel agent will have two exchange rates for currency.

This is how you will see this advertised.

The box shows the exchange rate for one pound (£1).

This indicates that:

- You have to give the bank €1.74 for every £1 they give you.
- The bank will give you only €1.59 for every £1 you give them.

Exchange rates		
We buy		We sell
1.74	EUROS	1.59

So if Carole buys some currency from a bank and then sells it back to them, she will have less money than when she started.

Activity 14

This is what would happen if Carole changed £50 to euros then changed it back (with no commission) to pounds.

The bank sells **€1.59 for £1**.

$$£50 = 50 \times €1.59 = €79.50$$

The bank buys **€1.74 for £1**.

$$€79.50 \div €1.74 = £45.69 \text{ (to the nearest 1p)}$$

$$\text{Carole loses } £50.00 - £45.69 = £4.31$$

Use the bank rates above to work out how much you would lose on each exchange.

1 £100 = €100 × 1.59 = €

÷ 1.74 = £

I lose - =

2 £125 = €

÷ 1.74 = £

I lose - =

3 £450 = €

÷ = £

I lose - =

Review

Do you need more practice in currency conversion and comparing decimals?

Yes ☐ No ☐

For more work on this, go to H3 (page 13) or E1 (page 15).

This work links to mini-project M1 (page 16).

Activity H1

Table 1 shows the pounds given for 1250 Swiss francs on 7 days.

Arrange the seven numbers in order of size, starting with the smallest. Put the results in Table 2.

Table 1

	Pounds given					
Day 1	5	3	3	.	5	7
Day 2	5	3	3	.	3	9
Day 3	5	3	3	.	2	8
Day 4	5	3	5	.	4	5
Day 5	5	3	7	.	5	9
Day 6	5	3	7	.	3	6
Day 7	5	4	2	.	0	9

Table 2

	Pounds given					
Day 3	5	3	3	.	2	8
Day	5	3	3	.		
Day	5	3	3	.		
Day						
Day						
Day						
Day						

Activity H2

Complete the table by working out how much it will cost to buy £450 of foreign currency for different rates of commission.

Commission rate	Given rate of £450	Commission	£450 + commission = cost
1%	$450 \div 100 = £4.50$	£4.50	$£450 + £4.50 = £454.50$
2%	$2 \times £4.50$	£9.00	
3%			
4%			
2.5%			

Activity H3

Complete this currency ready reckoner.

The exchange rate is £1 = 2.32 Swiss francs.

Pound	1	2	3	4	5	6	7	8	9	10
Swiss francs	2.32	4.64	6.96							23.20



Activity H4

This currency ready reckoner allows you to change from Swiss francs to pounds (£).

Swiss franc	Pound	Swiss franc	Pound
1	0.45	10	4.47
2	0.89	15	6.70
3	1.34	20	8.94
4	1.79	25	11.17
5	2.23	30	13.41
6	2.68	35	15.64
7	3.13	40	17.88
8	3.58	45	20.11
9	4.02	50	22.35

Use the ready reckoner to work out these prices in pounds.

	Amount	Price in Swiss francs	Price in pounds (£)
Pepsi	1.5 litres	2.00	
Apples	1 kg	3.00	
Instant coffee	100g	5	
	200g	10	
Supersoft toilet rolls	12	8.00	
Cheese	1 kg	11.00 = 10 + 1	4.47 + 0.45 = 4.92
Washing liquid	2 litres	13.00	
Chicken	1 kg	17.00	
Pork chops	1 kg	18.00	
Bacon	1 kg	26.00	

Activity H5

Work out the percentage saving in France for these items (use £1 = €1.59).

Item	England (pounds)	England (euros)	France (euros)	Difference (euros)	Percentage saving (%)
2 litres cola	£1.89		€1.80		
200g instant coffee	£2.85		€3.10		



Extension



Activity E1

This table shows the conversion rates between the UK pound and five other currencies.

Thursday, September 19, 2002

Currency names	Japanese yen	Pakistan rupee	Russian rouble	Hong Kong dollar	US dollar
UK pound	188.250	95.6815	49.0917	12.0953	1.5501

Use the table to convert these amounts of money to the currencies stated.

- £1500 = Hong Kong dollars
- £800 = Japanese yen
- £640 = US dollars
- £300 = Pakistani rupees
- £120 = Russian roubles



Activity E2

Campsite price list

Prices per day in high season		Low season
Pitch + car	€26.00	50% reduction (excluding holiday tax)
Adult	€6.80	
Child aged 7–15 years	€5.10	
Holiday tax (per person over 15 years)	€0.35	

Work out the total cost for 2 adults and 2 children, aged 8 and 10, with a car and tent, for one night.

High season

- The high season cost (excluding tax) =
- Cost including holiday tax =

Low season

- The low season cost (excluding tax) =
- Cost including holiday tax =
- This site offers a 20% reduction (excluding holiday tax) to groups staying for more than three nights. Work out the cost including holiday tax for the family for four nights at high season.



Mini-projects



Activity M1

Collect information about exchange rates and commission charges at banks and building societies. Compare the rates and charges at different banks etc.

Record exchange rates for one or more currencies over a period of time.

Look in daily papers.

If you have Internet access, try sites like

www.oanda.com

www.rate.co.uk



Activity M2

The Hamburger Index, also known as the Big Mac index, shows the cost of a Big Mac in many countries.

Find out about the index and use it to compare prices.

Try this site.

www.oanda.com

Compare fuel prices across Europe.

You could start with this site.

www.see-search.com/business/fuelandpetrolpriceseurope



Activity M3

Plan a trip to another country e.g. Pakistan, the Caribbean, Eastern Europe etc.

Find out about the currency and the exchange rate.

Produce a currency exchange ready reckoner.

Find out about hotel costs.



Activity M4

Use the Internet to find and compare the cost of some food items from a supermarket in the UK and in another country of your choice.

1 Which country is cheaper?

2 By what percentage?

3 Write a report on your findings.

Try these sites for information about prices in France.

www.day-tripper.net

www.francetourism.com



Check it



Activity C1

Use the pound to dollar exchange rate of £1 = \$1.55 to complete the table.

Pound (£)	US dollar (\$)
10	
20	
30	
40	
50	

Pound (£)	US dollar (\$)
60	
70	
80	
90	
100	



Activity C2

- 1 The table shows the price of a Big Mac in eight countries. Rearrange the prices in order, starting with cheapest.

Country	Price in US dollars
United States	\$2.54
Britain	\$3.11
Australia	\$1.64
China	\$1.19
Switzerland	\$4.27
Sweden	\$2.57
Denmark	\$3.31
Argentina	\$0.68

Country	Price in US dollars
Argentina	\$0.68

- 2 a Use the table above to write down the cost of a Big Mac in Britain, in US dollars.

- b One US dollar is 64 pence (\$1 = 64p). Work out the cost of a Big Mac in pounds and pence.

.....

.....





Activity C3

Some goods cost less in France; others cost more.

Give your answers in pounds and pence.

- 1 A 1.5 litre bottle of Pepsi costs 89p in an English supermarket. It costs 25% less in France.

In France it costs

- 2 A litre of orange juice costs 99p in England. It costs 50% less in France.

In France it costs

- 3 A 115 g tin of sardines costs 29p in England. It costs 70% more in France.

In France it costs

- 4 A tin of tuna costs 99p in England. It costs 57% more in France.

In France it costs

How am I doing?

Now look back at the skills listed on page 1.

Then complete the sentences below.

I am confident with

.....

.....

I need more practice with

.....

.....

Date

Activity 1

1

Provider	Amounts in order of size
Supercash	£463.32
Savings Bank	£467.88
Action Bank	£474.32
Best Bank	£476.16

2 £476.16

3 $£476.16 - 463.32 = £12.84$

Activity 2

City	Cost (£)
Newcastle	£479.19
Bristol	£472.97
Brighton	£469.42
Oxford	£465.66
Belfast	£461.47
Manchester	£461.44

1 Newcastle

2 Manchester

3 $£479.19 - £461.44 = £17.75$

Activity 3

1 £152.25

2 £153

3 £151.50

4 penny

5 Roman and city

Activity 4

1 €39.75 Check $39.75 \div 1.59 = 25$

2 €79.50 Check $79.50 \div 1.59 = 50$

Activity 5

Pound (£)	Euro (€)
3	4.77
4	6.36
9	14.31

Pound (£)	Euro (€)
10	15.90
25	39.75
35	55.65
50	79.50

Activity 6

1 £15.75 Check $15.75 \div 0.63 = €25$

2 £31.50 Check $31.50 \div 0.63 = €50$

3 £12.60 Check $12.60 \div 0.63 = €20$

4 £173.25 Check $173.25 \div 0.63 = €275$

Activity 7

1

Euro (€)	Pound (£)
3	1.89
4	2.52
7	4.41

Euro (€)	Pound (£)
10	6.30
25	15.75
35	22.05
50	31.50

Activity 8

1 $10.40 + 4.50 = 14.90$

2 $15.80 + 8.70 = 24.50$

3 $12.00 + 5.80 = 17.80$

4 $16.80 + 8.20 = 25.00$

5

Campsite	Low season cost	High season cost
Campsite B	€14.90	€24.50
Campsite A	€17.60	€24.60
Campsite C	€17.80	€25.00

Activity 9

1 €9.60 $9.6 \div 24.50 \times 100 = 39\%$

2 €7.20 $7.20 \div 25.00 \times 100 = 29\%$

3 campsite B

Activity 10

1 £0.232, £1.39, €2.21

2 £0.4761, £1.17, €1.86

3 £0.5192, £1.11, €1.76

Activity 11

1 £0.2535, £0.14, €0.22

2 £0.1078, £0.38, €0.60

3 £0.638, £0.81, €1.29



Activity 12

1

	England (pence)	England (euros)	France (euros)	Difference	Percentage saving
4-star	79.5p	€1.26	€1.12	€0.14	11.1%
Unleaded	76.8p	€1.22	€1.04	€0.18	14.8%
Diesel	77.5p	€1.23	€0.78	€0.45	36.6%

2 Diesel

3 4-star

Activity 13

1

	England (pence)	England (euros)	France (euros)	Difference	Percentage saving
4-star	79.5p	€1.26	€1.13	€0.13	11.5%
Unleaded	75.3p	€1.20	€0.90	€0.30	33%
Diesel	76.6p	€1.22	€0.79	€0.43	54%

2 Diesel

3 4-star

Activity 14

- 1 €159 91.38 $£100 - £91.38 = £8.62$
 2 €198.75 114.22 $£125 - £114.22 = £10.78$
 3 €715.50 $411.21 \div 1.74$ $£450 - £411.21 = £38.79$

Help

H1

	Pounds given					
Day 3	5	3	3	.	2	8
Day 2	5	3	3	.	3	9
Day 1	5	3	3	.	5	7
Day 4	5	3	5	.	4	5
Day 6	5	3	7	.	3	6
Day 5	5	3	7	.	5	9
Day 7	5	4	2	.	0	9

H2

Rate	Given rate of £450	Commission	£450 + commission = cost
1%	$450 \div 100 = £4.50$	£4.50	$£450 + £4.50 = £454.50$
2%	$2 \times £4.50$	£9.00	$£450 + £9.00 = £459.00$
3%	$3 \times £4.50$	£13.50	$£450 + £13.50 = £463.50$
4%	$4 \times £4.50$	£18.00	$£450 + £18.00 = £468.00$
2.5%	$2.5 \times £4.50$	£11.25	$£450 + £11.25 = £461.25$

H3

Pound	1	2	3	4	5
Swiss francs	2.32	4.64	6.96	9.28	11.60

Pound	6	7	8	9	10
Swiss francs	13.92	16.24	18.56	20.88	23.20

H4

Pepsi £0.89 washing liquid £5.81
 apples £1.34 *chicken £7.59 or £7.60
 100g instant coffee £2.23 *pork chops £8.04 or £8.05
 200g instant coffee £4.47 bacon £11.62
 toilet rolls £3.58

*Answer depends on method used

H5

Item	England (pounds)	England (euros)	France (euros)	Difference (euros)	Percentage saving (%)
2 litres cola	£1.89	€3.01	€1.80	€1.21	40.2%
200g instant coffee	£2.85	€4.53	€3.10	€1.43	31.6%



Extension

E1

- 1 18142.95 Hong Kong dollars
- 2 150600 Japanese yen
- 3 992.064 US dollars
- 4 28704.45 Pakistani rupees
- 5 5891.004 Russian roubles

E2

High season

- 1 $€26.00 + 2 \times €6.80 + 2 \times €5.10 = €49.80$
- 2 $€49.80 + 4 \times €0.35 = €51.20$

Low season

- 3 $50\% \text{ of } €49.80 = €24.90$
- 4 $€24.90 + 4 \times €0.35 = €26.30$
- 5 One night costs €49.80. Four nights costs €199.20. 20% of €199.20 is €39.84. Cost without tax = €159.36. Tax for one night = $4 \times €0.35 = €1.40$. Tax for 4 nights = €5.60. Total cost €159.60 + €5.60 = €164.96

Mini-projects

Activities M1, M2, M3, M4

Check with teacher.

Check it

C1

Pound	US dollar (\$)	Pound	US dollar (\$)
10	15.50	60	93.00
20	31.00	70	108.50
30	46.50	80	124.00
40	62.00	90	139.50
50	77.50	100	155.00

C2

Country	Price in US dollars
Argentina	\$0.68
China	\$1.19
Australia	\$1.64
United States	\$2.54
Sweden	\$2.57
Britain	\$3.11
Denmark	\$3.31
Switzerland	\$4.27

- 2 a \$3.11
b £1.99

C3

- 1 0.67
- 2 £0.495 therefore £0.50 to the nearest 1p
- 3 £0.49
- 4 £1.55 to nearest 1p