

fs4u

Maths Level 1

Test your skills

Sections 1–3

Planning a holiday

Applying skills in:

- whole numbers
- fractions, decimals and percentages
- ratio, proportion, formulae

Answer all questions in this task.

Write your answers in the spaces provided.



Where you see this sign you must show clearly how you get your answers as marks may be awarded for your working out.

You may use a calculator.

Here is part of a brochure for holidays in Ibiza, Spain. Use the information to answer the questions.

LOCATION: PORTINATX
OASIS HOTEL
3 STAR HOTEL ★ ★ ★



The Oasis is situated directly in front of the Portinatx beach. The complex consists of the hotel Oasis, Oasis Playa and the apartments.

Traveller Rating: 👍👍👍 (3 out of 5)

14 days	Room & Board Type	Cost Per Person
2 Adults	Twin beds Half Board	£335.00
2 Adults	Twin beds Full Board	£440.00



LOCATION: PORTINATX
CLUB VISTA HOTEL
3 STAR HOTEL ★ ★ ★



The Club Vista Bahia is situated in Portinatx, Ibiza. It has 175 large rooms and 4 pools. There is a restaurant, bar, playground, tennis court and the other hotel facilities to make guests' stay entertaining. It is the ideal destination for families and couples looking for a relaxing holiday. The hotel is next to the beach and approximately 33 km from the airport of Ibiza.


Traveller Rating: 👍👍👍👍 (4 out of 5)

14 days	Room & Board Type	Cost Per Person
4 Adults	4 beds Garden View Full Board	£484.50

1	Four friends are planning a two-week holiday in Ibiza. They can share a room.
a) What is the 'Full Board' room cost for all four at The <i>Oasis</i> ?	
	<div style="text-align: right; margin-top: 20px;">Full Board cost <input style="width: 150px;" type="text" value="£"/></div>
b) What is the 'Full Board' room cost for all four at <i>Club Vista</i> ?	
	<div style="text-align: right; margin-top: 20px;">Full Board cost <input style="width: 150px;" type="text" value="£"/></div>

2 'Half Board' means you have to find your own mid-day meal.

How much cheaper is the room at The *Oasis* for **one** person if you choose 'Half Board'?




£

3 The brochure gives prices to help you plan holiday costs:

Typical costs of food and drink in Ibiza


Chicken or steak	£6.00
Hamburger or pizza	£2.50
French fries	£1.00
Dessert	£1.20
Coffee or tea	55 pence
Canned drinks	65 pence

a) Calculate the cost for steak, fries, dessert and coffee. Round the cost of this mid-day meal to the nearest £1.



Cost of mid-day meal £

b) The group plan to be in Ibiza for 14 days. Use your answer to a) above to estimate the cost of 14 mid-day meals. Which would be the cheaper option at The *Oasis* – Half Board or Full Board? How much cheaper?



Cheaper option by £

4 The group have to choose their hotel.

a) If they decide simply on the basis of the cheapest option, which option will they choose?



Hotel

b) What is the difference between the cheapest and the most expensive option?



Difference £

5 Now they have to work out how to get there and back!

They look on the internet for flights on the days they need. Here is part of what they find:

Brian-Air				
OUTWARD	06:00	£64	10:00	£96
RETURN	09:30	£80	14:45	£

The later Brian-Air *return* flight costs $\frac{1}{5}$ more than the earlier return flight.

a) What is the ratio of the 6 am to the 10 am flight cost? Express it in simplest terms.



Ratio :

b) What is $\frac{1}{5}$ as a percentage?



% percentage

Luxi-Air offer outward + return flight for £240 in total. With a student card, there is $\frac{1}{4}$ off this price. The group all have student cards.

c) What is the cost of this flight per person?



£ Total cost

d) What is the price for the cheapest flight cost there and back per person, from what you have worked out so far?



Cheapest flight £

When they look more closely, they find that Brian-Air will charge £20 each way per person for baggage.

e) Which is the cheaper option per person now, Brian-Air or Luxi-Air? How much cheaper?



Cheaper option by £

f) What is the lowest possible holiday cost so far, for each person?



Lowest cost £

6 The holiday company offer travel insurance. The table shows the cost of travel insurance according to the number of nights stay and the age of the passenger:

Number of nights	Age 2–15	Age 16–64	Age 65+
Up to 9	£12	£16	£35
Up to 17	£15	£20	£48
Up to 23	£28	£39	£89

The group are all aged 17.

a) What is the total cost of the holiday for the whole group?



Cost of insurance £

b) What is the total cost of the holiday for the whole group?



Total cost of holiday £

7 The cost of a holiday can be worked out using the formula below:
Cost of holiday per person =
cost of hotel per night · number of nights + cost of flights

If a hotel costs £40 per night per person, use the flight costs you chose earlier to work out the cost of a week's holiday for one person aged 22.



Cost per person £

Solutions

1a)	From the table, the cost per person is £440. $£440 \cdot 4 = £1760$	£1760
1b)	In the same way, $£484.50 \cdot 4 = £1938$	£1938
2	From the table, $£440 - £335 = £105$	£105
3a)	From the table, cost = $£6.00 + £1.00 + £1.20 + £0.55 = £8.75$. Round up.	£9
3b)	Full Board = £440. From Q2 and Q3a, Half Board + meals = $£335 + (£9 \cdot 14) = £335 + £126 = £461$. So Full Board is cheaper: $£461 - £440 = £21$	Full Board £21
4a)	Oasis Half Board + meals = £461. Oasis Full Board = £440. Vista Full Board = £484.50	Oasis Full Board
4b)	$£484.50 - £440.00 = £44.50$	£44.50
5a)	£64 : £96 Divide both by 8 = 8 : 12, then by 4, 2 : 3 (remember to keep them the right way round)	2 : 3
5b)	$\frac{1}{5} \cdot 100 = \frac{100}{5} = 20$	20%
5c)	$£240 \cdot \frac{1}{4} = \frac{£240}{4} = £60$. $£240 - £60 = £180$	£180
5d)	Brian-Air outward £64 return £80 total £144	£144
5e)	Brian-Air = $£144 + (£20 \times 2) = £184$ Luxi-Air = £180. $£184 - £180 = £4$	£4
5f)	From Q4a), accommodation = £440. From Q5e), flight is £180. $£440 + £180 = £620$	£620
6a)	up to 17 days / Age 16–64: £20	£20
6b)	From Q5f), accom + flight = £620. From Q6, insurance = £20. $£620 + £20 = £640$, $£640 \cdot 4 = £2560$	£2560
7	$C = £40 \cdot 7 + £180 = £280 + £180 = £460$	£460