

Examination Practice Questions

You should have:

A ruler, protractor, compasses, a pen, pencil, eraser, calculator.
For some questions, you may need tracing paper.

Instructions

- Use **black** ink or ball-point pen.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- **Calculators may be used.**

Information

- The marks for each question are shown in brackets.
- Use the number of marks for each question as a guide as to how much time to spend on each question. As a rough guide, you can multiply the number of marks by 1.2 to see how many minutes you should spend on a question.
- Questions been carefully compiled from or modelled on a variety of past papers and will generally get more challenging as the document progresses. Some of the later questions will go beyond the core grade level for this topic.

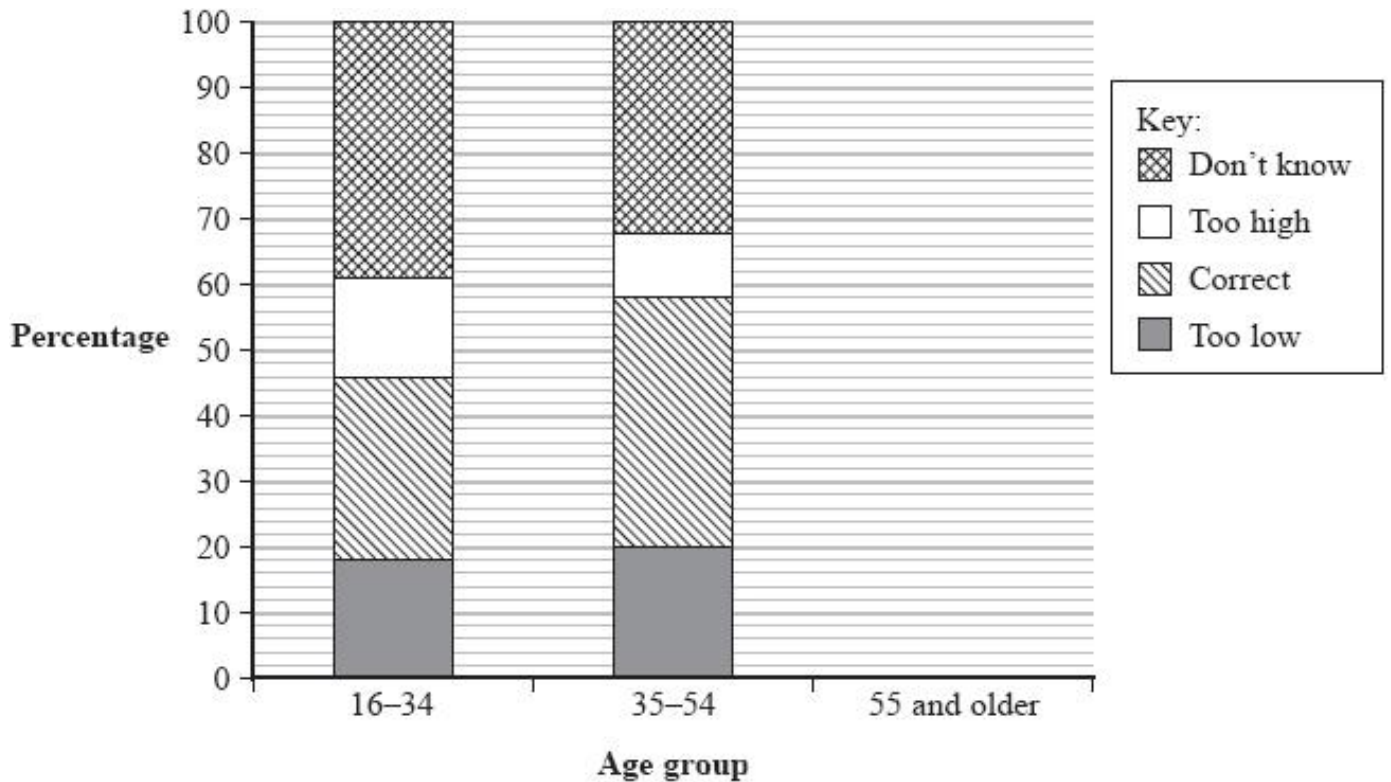
Advice

- Read each question carefully before you start to answer it.
- Don't forget to have fun.
- Check your answers at the end.

In a survey people were asked this question.

"How much does a first class stamp cost for a standard letter?"

The composite bar chart shows information about the answers given by people in two different age groups.



Source: Ofcom Residential Postal Tracker

(a) Use the composite bar chart to find the percentage of the 35-54 age group that gave an answer that is

(i) too low,

..... %

(ii) correct.

..... %

(3)

Here is information about the answers given by people in the 55 and older age group.

	Age group
Cost of first class stamp	55 and older
Too low	16%
Correct	38%
Too high	14%
Don't know	32%
Total	100%

(b) Use the information in the table to complete the composite bar chart for people in the 55 and older age group.

(3)

(c) Compare the answers given by people in the 16–34 age group with the answers given by people in the 35–54 age group.

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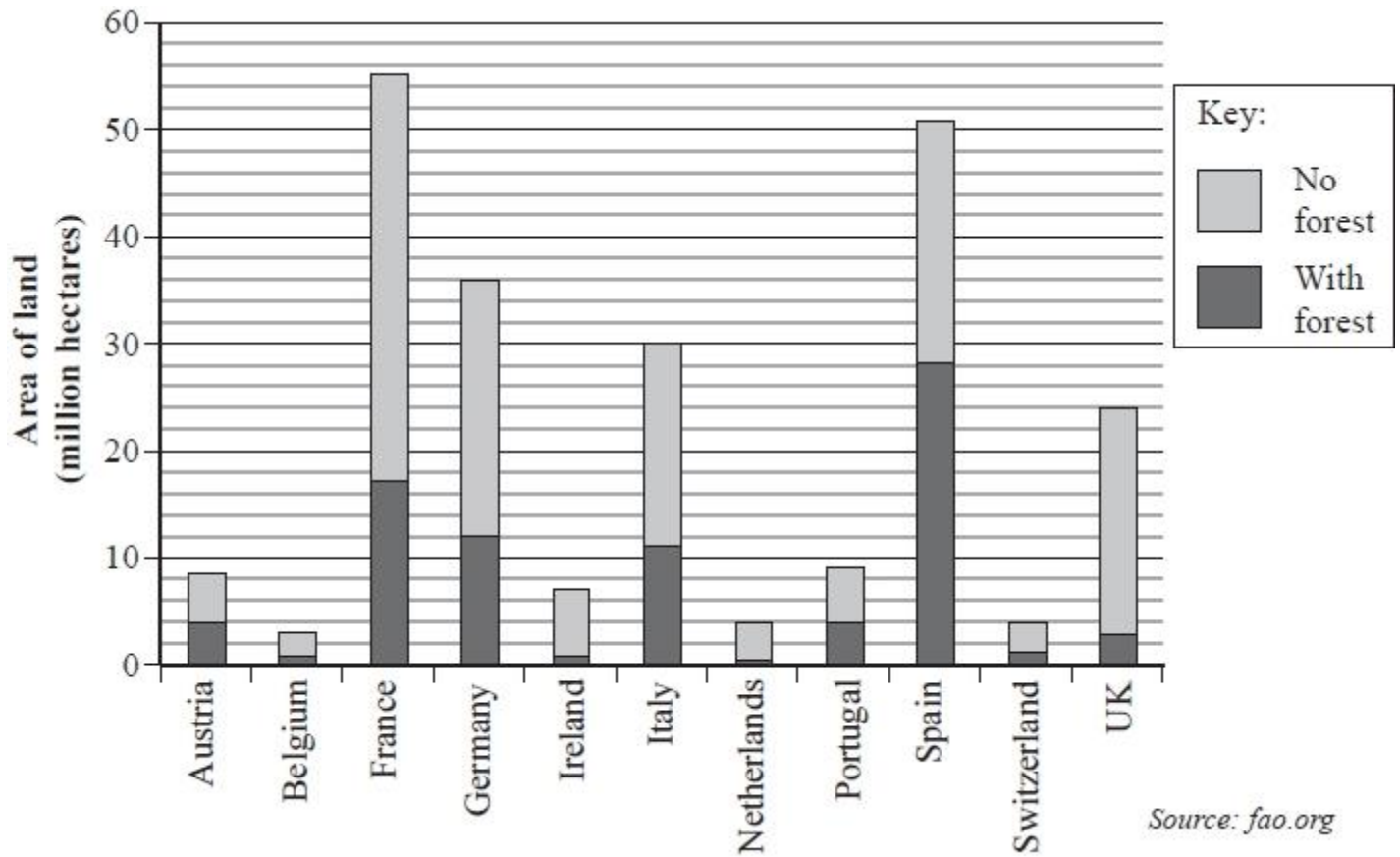
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(2)

(Total for question = 8 marks)

The composite bar chart shows information about the area of land with forest and the area of land with no forest in some countries.



(a) Write down the country

(i) with the largest total area of land,

.....

(ii) with the largest area of forest.

.....

(2)

(b) Work out the area of land with no forest in the UK.

..... million hectares

(2)

(c) Estimate the area of land in Germany with forest as a percentage of the total area of land in Germany.

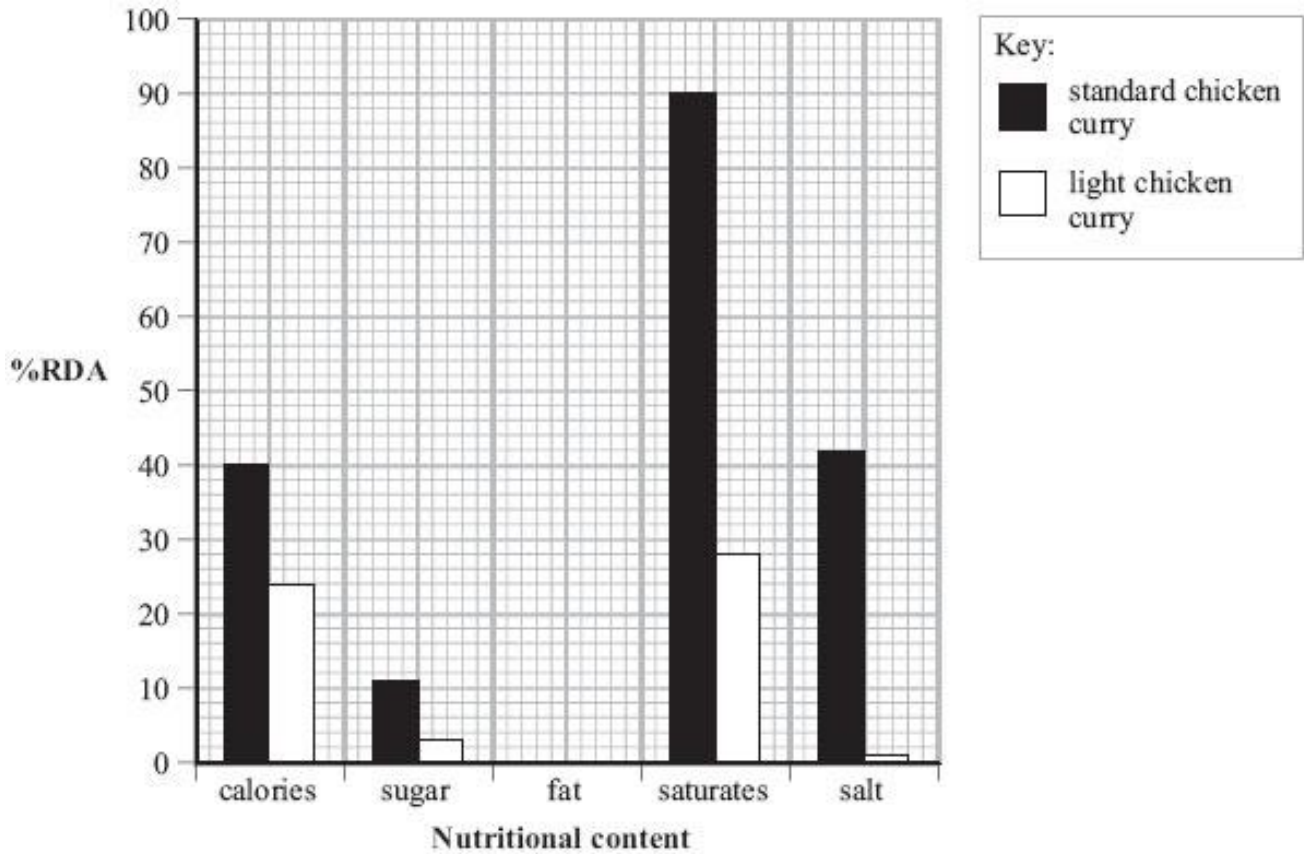
..... %

(2)

(Total for question = 6 marks)

The multiple bar chart shows some information about the nutritional content of a standard chicken curry and a light chicken curry.

The information is given as %RDA (percentage of 'recommended daily allowance').



The missing information for fat is

	%RDA
standard chicken curry	54
light chicken curry	12

(a) Complete the multiple bar chart.

(2)

(b) Write down the %RDA for salt in the standard chicken curry.

(1)

(c) Write down the nutritional content with the lowest %RDA for a standard chicken curry.

.....

(1)

(d) Compare the %RDA for saturates in the two chicken curries.

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(2)

(Total for Question is 6 marks)

A government statistician plans to do a survey on unemployment.

He is going to compare the number of months of male unemployment with the number of months of female unemployment.

(a) Write down a hypothesis he can use.

.....

.....

.....

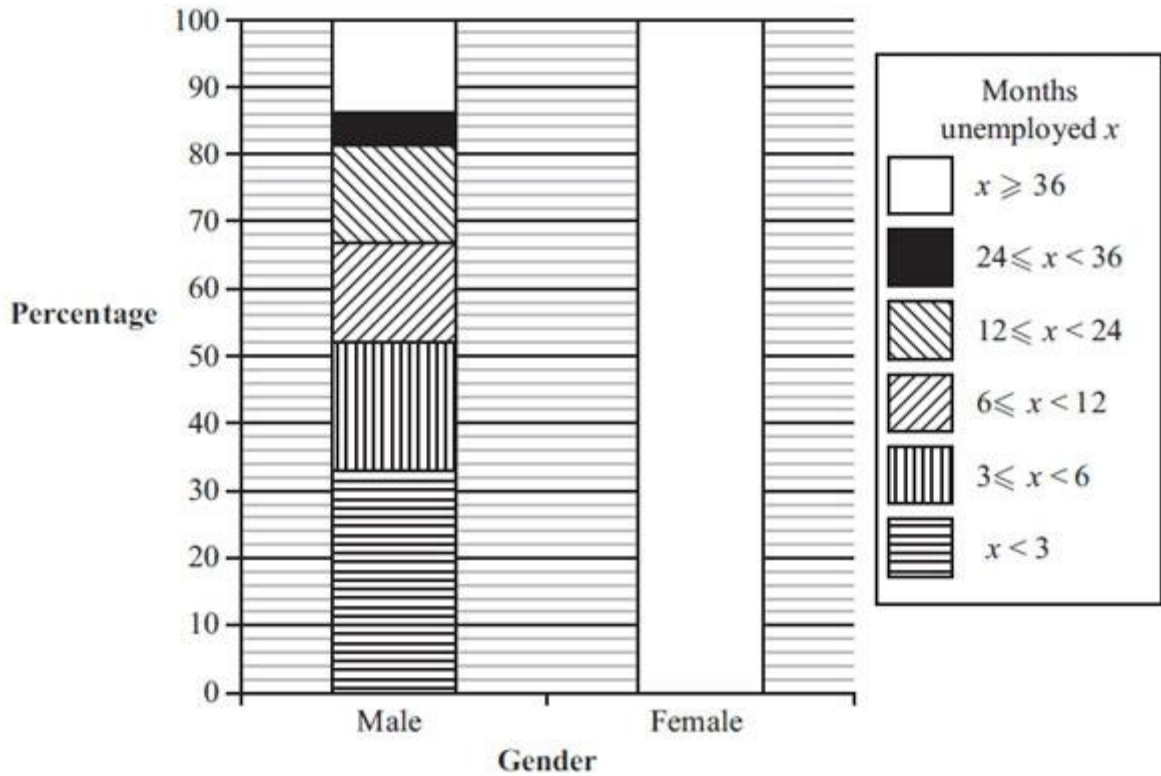
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The table shows some information about the number of months of unemployment of males and females aged 16 and over at the end of 2007

Number of months of unemployment (x)	Males %	Females %
$x < 3$	33%	44%
$3 \leq x < 6$	19%	20%
$6 \leq x < 12$	15%	17%
$12 \leq x < 24$	14%	10%
$24 \leq x < 36$	5%	4%
$x \geq 36$	14%	5%
Total	100%	100%

(Data source: Labour force survey, Office for National Statistics)

Percentages of unemployed males and unemployed females in different age groups for a given number of months



(b) Use the information in the table to complete the composite bar chart.

(3)

(c) Using information in the composite bar chart, what conclusions can you make about your hypothesis?

Give a reason for your answer.

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(2)

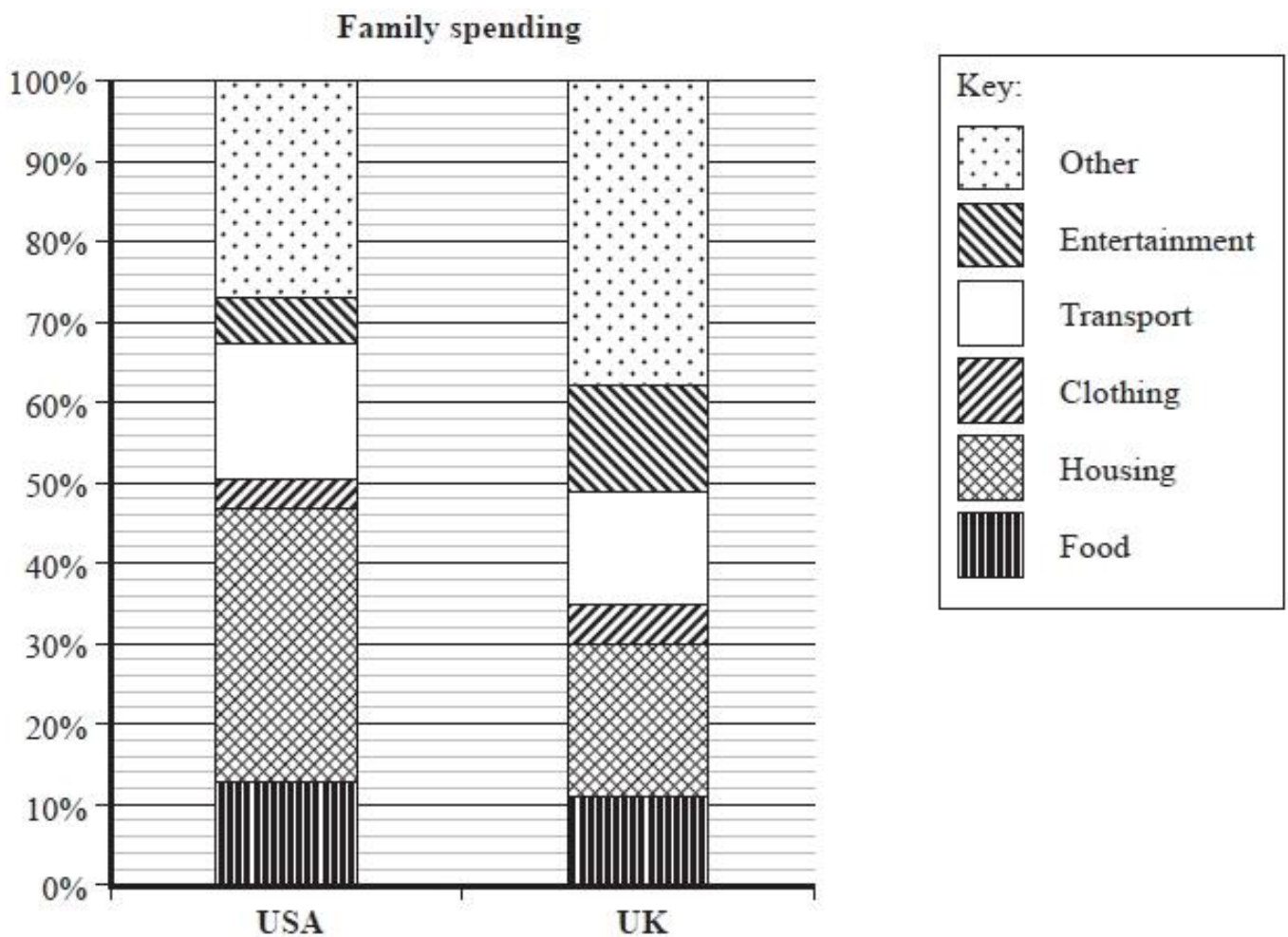
(Total for Question is 6 marks)

Tobi is investigating family spending in the USA and in the UK.

Two of his hypotheses are

- Hypothesis 1** The percentage of family spending on housing is greater in the USA than in the UK
- Hypothesis 2** The percentage of family spending on entertainment is greater in the USA than in the UK

Tobi collects data from the internet and draws these composite percentage bar charts.



(Data sources: USA – Bureau of Labor Statistics
UK – Office for National Statistics)

(a) Find the percentage of family spending on entertainment in the USA.

..... %
(2)

*(b) Explain, with reasons, whether or not the bar charts support each of Tobi's hypotheses.

Hypothesis 1

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.....

.....

.....

.....

Hypothesis 2

.....

.....

.....

.....

.....

(4)

Tobi thinks that the composite bar charts show that family spending on food is more in the USA than in the UK.

(c) Explain why Tobi is not correct.

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(1)

(Total for Question = 7 marks)

The table gives information about what full time first degree graduates did after completing their courses in 2002

Destinations of full-time first degree graduates 2002

Area of Study	UK Employment		Overseas Employment	Continuing Education	Unemployed
	Permanent	Temporary			
UK	42.8 %	20.1 %	2.1 %	19.8 %	6.8 %
North East	44.9 %	17.2 %	2.4 %	21.6 %	6.0 %
North West	44.5 %	21.3 %	1.7 %	18.9 %	6.5 %
Yorkshire and the Humber	47.5 %	18.5 %	2.6 %	17.7 %	6.1 %
East Midlands	47.1 %	18.9 %	1.9 %	17.7 %	6.1 %
West Midlands	42.2 %	21.1 %	2.1 %	20.6 %	7.1 %
East	38.9 %	19.1 %	1.9 %	26.5 %	5.6 %
London	40.2 %	19.5 %	1.2 %	19.6 %	9.1 %
South East	42.0 %	21.0 %	2.1 %	19.6 %	6.5 %
South West	45.7 %	19.0 %	2.4 %	16.0 %	6.9 %

(Source: www.gov.uk)

(a) For the graduates who studied in the West Midlands, write down the percentage who are unemployed.

.....

(1)

For the graduates who studied in the South East area, the percentage who went into permanent UK employment is twice the percentage that went into temporary UK employment.

One other area of study had this ratio of permanent to temporary UK employment.

(b) Write down the name of this other area of study.

.....

(1)

(c) For graduates who studied in London, work out the total percentage who went into some type of employment.

.....

(2)

(d) For graduates who studied in the UK, work out the total percentage represented in this table.

.....
(2)

The information in the table was gathered by means of a questionnaire given to all full time first degree students graduating in 2002

(e) The answer to part (d) is not 100%.

Suggest a reason why.

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(1)

(Total for Question is 7 marks)

The table gives information about the reasons given for authorised and unauthorised absences from school, of boys and girls, in the UK.

	State funded Secondary Schools		
	Boys %	Girls %	Total %
Percentage of absent sessions due to:			
Authorised Absence			
Illness (NOT medical or dental appointments)	54.05	56.52	55.30
Medical/dental appointments	5.61	6.32	5.97
Religious observance	1.25	1.14	1.19
Study leave	2.01	1.97	1.99
Traveller absence	0.12	0.10	0.11
Agreed family holiday	4.66	4.64	4.65
Agreed extended family holiday	0.09	0.08	0.08
Excluded, no alternative provision	3.52	1.29	2.39
Other authorised circumstances	8.03	7.46	7.74
Total Authorised Absence	79.33	79.52	79.43
Percentage of absent sessions due to:			
Unauthorised Absence			
Family holiday not agreed	1.67	1.74	1.70
Arrived late	1.12	1.10	1.11
Other unauthorised circumstances	13.65	13.63	13.64
No reason yet	4.22	4.02	4.12
Total Unauthorised Absence	20.67	20.48	20.57
Total Overall Absence	100.00	100.00	100.00

(Data source: dcsf.gov.uk)

(a) Write down the main reason given for

(i) authorised absence,

.....

(ii) unauthorised absence.

.....

(2)

The percentage of boys' absences was more than twice the percentage of girls' absences for one of the reasons listed in the table.

(b) Which reason?

.....

(1)

(Total for Question is 3 marks)

The table gives information about the public spending (£ billions) by Central Government and by Local Government in 2005 and in 2010

Public spending (£ billions)	2005			2010		
	Central Government	Local Government	Total	Central Government	Local Government	Total
1. General public services	37.0	5.2	42.2	49.6	5.5	55.1
2. Defence	29.7	0.0	29.8	37.6	0.1	37.7
3. Public order and safety	14.0	14.5	28.5	17.0	17.2	34.2
4. Economic affairs	25.0	8.7	33.7	34.4	11.9	46.3
5. Environmental protection	2.5	4.5	7.0	4.8	6.2	11.0
6. Housing and community	3.7	3.8	7.6	7.2	5.1	12.3
7. Health	82.6	0.4	82.9	118.1	0.1	118.2
8. Recreation and culture	5.5	4.4	10.0	7.5	5.9	13.4
9. Education	23.0	42.1	65.1	33.2	55.1	88.4
10. Social protection	128.7	35.6	164.3	175.7	49.8	225.5
Other spending	7.8	13.0	20.7	11.8	16.0	27.7
Total public spending	359.6	132.2	491.8	497.0	172.8	669.8

(Data source: ukpublicspending.co.uk)

(a) Write down the amount spent on Health by Central Government in 2010

£ billion
(1)

The largest amount spent by Local Government is in the same public spending category in both years.

(b) Write down this category.

.....
(1)

In 2010, the total public spending on Health was more than the total public spending on Education.

(c) How much more?

£ billion
(1)

The figures in the table for Local Government spending in 2010 add to £172.9 billion.

The total given in the table for this spending is £172.8 billion.

(c) Give a reason why these totals are different.

.....
.....

(1)

(e) Find the percentage increase in total public spending by Central Government between 2005 and 2010

..... %

(2)

(Total for Question = 6 marks)

A holiday in which people can visit two cities is called a two-centre holiday.
 A travel company offers four two-centre holidays.

The two-way table shows the numbers of these holidays booked in 2010

	Venice	Rome	Total
Geneva	24	26	
Paris	32	12	
Total			

(a) Complete the two-way table.

(2)

(b) Which of the two-centre holidays did most people choose?

Give a reason for your answer.

.....

.....

.....

.....

(2)

A person taking one of these holidays is chosen at random.

(c) What is the probability that this person visited Rome and Geneva?

.....

(1)

(d) Given that this person visited Venice,
 work out the probability that they also visited Paris.

.....

(2)

(Total for Question is 7 marks)

The table shows some information about the total money spent in British supermarkets in the 12 weeks up to 22 February for 2009 and for 2010
 It also shows the market share for each supermarket.

Great Britain Consumer Spend

Supermarket	12 Weeks to 22 February 2009		12 Weeks to 22 February 2010	
	Money Spent (£ thousands)	Market Share (%)	Money Spent (£ thousands)	Market Share (%)
Tesco	6,709,669	30.1%	7,102,289	30.4%
Asda	3,827,675	17.2%	3,973,853	17.0%
Sainsbury's	3,596,800	16.2%	3,799,974	16.3%
Morrisons	2,609,140	11.7%	2,865,051	12.3%
Co-operative	1,137,972	5.1%	1,323,593	5.7%
Somerfield	724,733	3.3%	396,223	1.7%
Waitrose	861,835	3.9%	995,300	4.3%
Iceland	432,914	1.9%	458,996	2.0%
Aldi	641,166	2.9%	657,366	2.8%
Lidl	513,291	2.3%	520,455	2.2%
Netto	159,452	0.7%	161,342	0.7%
Farm Foods	111,104	0.5%	119,472	0.5%

Data source: adapted from Kantar Worldpanel

More money was spent in one of these supermarkets in 2009 than in 2010 for these 12 weeks.

(a) Write down the name of this supermarket.

.....

(1)

More money was spent in Netto in 2010 than in 2009 for these 12 weeks.

(b) Work out how much more money.

.....

(1)

(c) Work out the total **Market Share (%)** for the first four supermarkets in the table for the 12 weeks in each year.

.....

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(3)

(d) Comment on your answers to part (c).

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(1)