1. Nov/2021/Paper_11/No.10

The spreadsheet below shows the estimated number of visitors to the different countries in the United Kingdom. The figures shown relate to the months of July and August 2019. The formulae used in column D, to add up the number of visitors to each country, are also shown.

	A	B	C	D	E	F	G	H
1		UK Tourism Figures						
2								
3	Country	CCode1		Total number of visitors (millions)		Date	CCode2	Number of visitors (millions)
4	England	En		10.56		July 2019	NI	0.53
5	Northern Ireland	NI		1.14		July 2019	En	5.10
6	Scotland	Sc		1.25		July 2019	Sc	0.62
7	Wales	Wa		0.81		July 2019	Wa	0.43
8						August 2019	En	5.46
9						August 2019	NI	0.61
10						August 2019	Sc	0.63
11						August 2019	Wa	0.38

Spreadsheet

D
UK Tourism Figures
Total number of visitors (millions)
=SUMIF($G$4:$G$11,B4,$H$4:$H$11)
=SUMIF($G$4:$G$11,B5,$H$4:$H$11)
=SUMIF($G$4:$G$11,B6,$H$4:$H$11)
=SUMIF($G$4:$G$11,B7,$H$4:$H$11)

Column D Formulae

(a) Using this spreadsheet as an example, explain, in detail, what is meant by absolute and relative cell referencing and explain why both are used.

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(b) Describe, in detail, how **other** characteristics of spreadsheet software would enable this spreadsheet to be used for modelling purposes. Each characteristic must be different.

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2. Nov/2021/Paper_13/No.7

All the exams taken in a school are marked out of 80. The school has introduced a system of marking where students are awarded 5 marks for just sitting the exam and then, as normal, are awarded further marks for correct answers.

The marks are stored in a spreadsheet and validated using a range check.

Describe, giving examples, **three** types of test data that could be used to test the range check. For each type of data, describe an improvement that might be necessary as a result of the testing.

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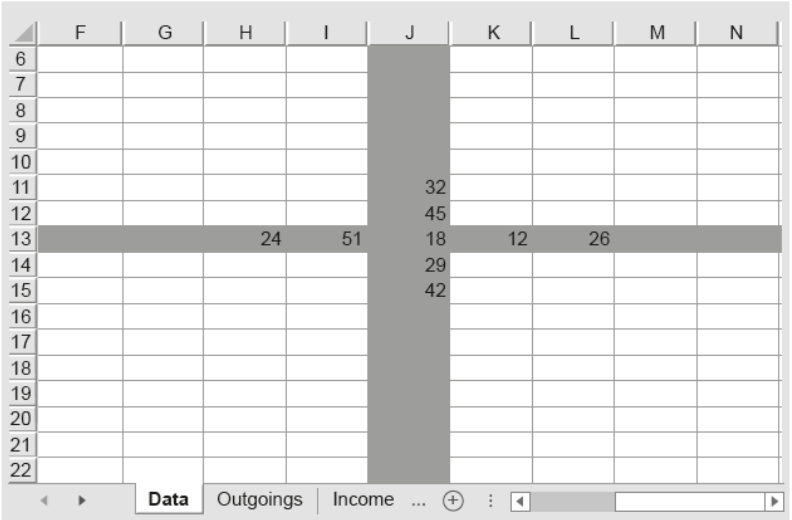
3. Mar/2021/Paper_12/No.12



	F	G	H	I	J	K	L	M	N
6									
7									
8									
9									
10									
11					32				
12					45				
13			24	51	18	12	26		
14					29				
15					42				
16									
17									
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19									
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22									

Data | Outgoings | Income ...

(a) Explain, using examples from the spreadsheet above and its contents, what is meant by:

(i) cells,

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(ii) rows,

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(iii) columns,

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(iv) worksheets.

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4. June/2021/Paper_11/No.8

A company sells domestic appliances. The spreadsheet shows the sales of washing machines for the first five months of this year.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	**Month**	**Serial Number**		**Price**										
2	Jan	614481		$481		**Sales Month**	**Monthly Total**							
3	Jan	707617		$617		Jan	$1,964							
4	Jan	227616		$616		Feb	$1,728							
5	Jan	907250		$250		Mar	$392							
6	Feb	485231		$231		Apr	$815							
7	Feb	318299		$299		May	$1,100							
8	Feb	211500		$500										
9	Feb	052066		$66										
10	Feb	376632		$632										
11	Mar	086392		$392										
12	Apr	392059		$59										
13	Apr	757756		$756										
14	May	284074		$74										
15	May	517520		$520										
16	May	336250		$250										
17	May	134256		$256										
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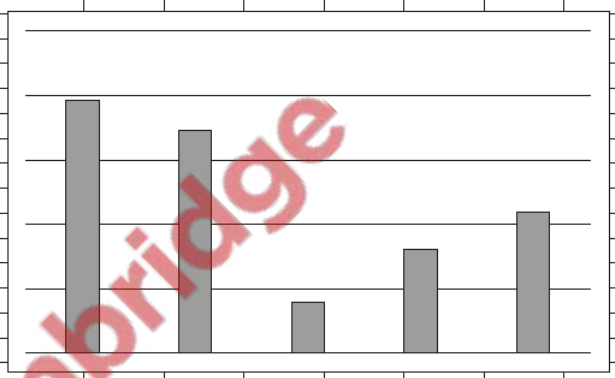

Fig. 8.1

(a) The formula in cell D2 is =VALUE(RIGHT(B2,3)).

Explain, without using cell references, what this formula does.

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(b) In Fig. 8.1, the formula in cell G3 is =SUMIF(A$2:A$17,F3,D$2:D$17).

Explain, without using cell references, what this formula does.

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(c) The bar chart in Fig. 8.1 lacks information about what it represents. It has been created from contiguous data.

(i) Identify the cell range that was used to create the bar chart.

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(ii) Describe what information should be added to the bar chart.

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(d) Evaluate, by weighing up the advantages and disadvantages, the use of the spreadsheet in Fig. 8.1 for financial forecasting.

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5. June/2021/Paper_12/No.5

Analyse the effectiveness of using a line graph, compared to a vertical bar chart, for showing shopping trends, using the following data.

2020												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sales ($)	1050	1120	1180	1150	1140	1160	1170	1190	1180	1200	1190	1220

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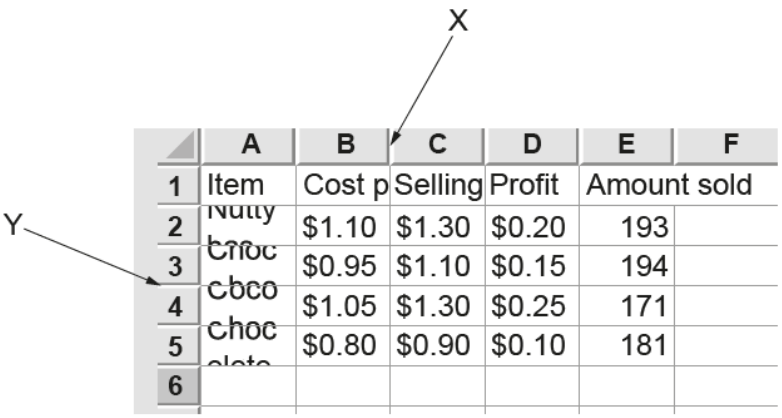
6. June/2021/Paper_12/No.11

The spreadsheet below shows information about sweets that a shop sells. The data has been formatted but the spreadsheet needs some improvements.



(a) Describe, in detail, what would happen within the spreadsheet if the mouse was double-clicked with the pointer positioned at X.

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(b) Describe, in detail, what would happen within the spreadsheet if the mouse was double-clicked with the pointer positioned at Y.

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(c) Originally, the data was entered into the cells in the range B2:C5 as numbers.

Describe the formatting that has been applied to the cells in this range.

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(d) Validation is to be applied to cells B2 to B5.
This will prevent numbers less than the current minimum value from being entered.
The shop owner will not use a range check or a lookup check.

Name and describe the validation check that will be used.

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7. June/2021/Paper_13/No.8

The spreadsheet shows the values of used cars and the deposits required to buy them.

D2 | =ROUND(C2*10%,0)

	A	B	C	D
1	Car make	Car model	Car value	Deposit required
2	Diap	D5	$4,752.00	$475.00
3	Diap	D1	$6,732.00	$673.00
4	Sentel	M810	$6,655.00	$666.00
5	Sentel	R500	$5,445.00	$545.00
6	Panther	ZE	$8,470.00	$847.00
7	WRM	WB	$10,285.00	$1,029.00
8	WRM	WA	$12,100.00	$1,210.00
9	Diap	D4	$4,235.00	$424.00
10	Panther	ZK	$9,438.00	$944.00
11	WRM	WB	$7,502.00	$750.00
12	Diap	D3	$5,082.00	$508.00
13	Panther	ZJ	$10,890.00	$1,089.00
14	Sentel	G47	$11,374.00	$1,137.00
15	WRM	WB	$10,527.00	$1,053.00

(a) Explain what is meant by the term 'formula'. Refer to the contents of cell D2 in your answer.

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(b) Explain what is meant by the term 'function'. Refer to the contents of cell D2 in your answer.

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The spreadsheet has now been sorted.

	A	B	C	D
1	Car make	Car model	Car value	Deposit required
2	Diap	D5	$4,752.00	$475.00
3	Diap	D4	$4,235.00	$424.00
4	Diap	D3	$5,082.00	$508.00
5	Diap	D1	$6,732.00	$673.00
6	Panther	ZK	$9,438.00	$944.00
7	Panther	ZJ	$10,890.00	$1,089.00
8	Panther	ZE	$8,470.00	$847.00
9	Sentel	R500	$5,445.00	$545.00
10	Sentel	M810	$6,655.00	$666.00
11	Sentel	G47	$11,374.00	$1,137.00
12	WRM	WB	$7,502.00	$750.00
13	WRM	WB	$10,285.00	$1,029.00
14	WRM	WB	$10,527.00	$1,053.00
15	WRM	WA	$12,100.00	$1,210.00

(c) Identify the steps that have been taken by a user to produce this sorted spreadsheet.

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8. June/2021/Paper_13/No.9

Johan has produced a spreadsheet.

Describe **five** advantages of Johan saving the spreadsheet as a csv file compared to saving it as a spreadsheet file.

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9. Nov/2020/Paper_12/No.3

An IT specialist is employed by a car showroom to manage the spreadsheets which record all details of car sales. Here is a spreadsheet showing some of the cars for sale in a showroom.

E18 | =SUMIFS(E5:E15, A5:A15,I6,G5:G15,">"&I8)

	A	B	C	D	E	F	G	H	I
1	Make	Model	Engine (litres)	Licence	Price	Economy (L/Km)	Year made		
2									
3									
4									
5	Daui	2000	1.8	JPY 648	$25,000	18.0	2016		
6	Tiaf	Visette	1.4	FGB 721	$15,500	16.7	2010		Daui
7	Arajug	EX	1.4	FFA 419	$18,000	13.7	2009		
8	Daui	1000	2	BFK 297	$10,500	12.0	2003		2010
9	Tiaf	Firetips	1.2	GFL 364	$11,000	12.1	2012		
10	Tiaf	Firetips	1.2	HDC 684	$12,500	12.3	2013		
11	Arajug	EX	1.2	JYU 381	$42,500	15.5	2016		
12	Daui	2000	1.8	KJN 384	$28,000	18.5	2017		
13	Tiaf	Delrah	1.6	GXL 347	$19,000	16.3	2013		
14	Arajug	JX	1.2	KNN 478	$47,500	16.6	2017		
15	Tiaf	Visette	1.4	LSA 442	$45,000	19.9	2018		
16									
17									
18					53000				
19									

(a) The IT specialist has entered a formula in E18 after receiving a request from the showroom manager.

(i) Write down the information the showroom manager asked for.

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(ii) Explain, step by step, how the spreadsheet software calculated the result.

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(b) Describe, step by step, how the IT specialist could set up the cell so that the user could just use a mouse to change the input in cell I6.

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10. Mar/2020/Paper_12/No.7

Here is part of a spreadsheet showing the earnings of a selection of workers at a company.

E10 | =D10*VLOOKUP(B10,jobrate,3,0)

	A	B	C	D	E	F
1					Standard rate per hour	
2			As	Assistant	$12	
3			Se	Secretary	$20	
4			Cl	Clerk	$15	
5						
6	Worker ID	Job code	Job type	Hours worked this week	Wage paid this week	
7	42158P	As	Assistant	39	$468	
8	63119M	Se	Secretary	40	$800	
9	63214P	Se	Secretary	35	$700	
10	89261N	Cl	Clerk	36	$540	
11	97643M	As	Assistant	40	$480	

(a) The formula in cell E10 contains a named range, shaded in the spreadsheet.

Describe, step by step, how the named range was created.

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(b) Explain, step by step, what the formula in cell E10 does.

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(c) Give **two** reasons why a named range is used.

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(d) Explain, step by step, how to perform a filter on secretaries earning more than $750.

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Here is the same spreadsheet showing the formula in cell C7, **VLOOKUP(B7,C$2:D$4,2,0)**.

C7 =VLOOKUP(B7,C$2:D$4,2,0)

	A	B	C	D	E	F
1				Standard rate per hour		
2			As	Assistant	$12	
3			Se	Secretary	$20	
4			Cl	Clerk	$15	
5						
6	Worker ID	Job code	Job type	Hours worked this week	Wage paid this week	
7	42158P	As	Assistant	39	$468	
8	63119M	Se	Secretary	40	$800	
9	63214P	Se	Secretary	35	$700	
10	89261N	Cl	Clerk	36	$540	
11	97643M	As	Assistant	40	$480	

(e) By explaining what each part of the formula does, describe how it displays 'Assistant' in C7.

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11. June/2020/Paper_11/No.12

Here is part of a spreadsheet showing the wages earned by a group of workers in a company.

E3 | =IF(B3>40,C3*D3*1.5,"")

	A	B	C	D	E	F
1						
2	Workers Number	Hours worked this week	Hours overtime worked	Rate per hour paid	Overtime earned this week	Wage paid this week
3	E41231	52	12	$14.00	$252.00	$812.00
4	C41827	45	5	$12.50	$93.75	$593.75
5	P30731	40		$17.50		$700.00
6	J51549	38		$14.00		$532.00
7	P77168	44	4	$12.50	$75.00	$575.00
8	C43839	42	2	$14.00	$42.00	$602.00
9	E34572	36		$17.00		$612.00
10	E48505	48	8	$17.00	$204.00	$884.00
11	P40813	46	6	$12.50	$112.50	$612.50
12	C32408	39		$12.50		$487.50
13	C69848	41	1	$14.00	$21.00	$581.00

(a) Without referring to other cell references, explain, in detail, what every part of the formulae in cells E3 and E5 do. You may assume that the formula has been replicated down for all workers.

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(b) This spreadsheet has not been tested.

Describe the test plan you would use to make sure there are no errors in the formulae in column E of this spreadsheet. You can assume that the formula in column C works perfectly and does not need changing.

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(c) Using **only** the sort feature explain how you would be able to make the spreadsheet used in part **(a)** produce this display.

	A	B	C	D	E	F
1						
2	Workers Number	Hours worked this week	Hours overtime worked	Rate per hour paid	Overtime earned this week	Wage paid this week
3	P40813	46	6	$12.50	$112.50	$612.50
4	C41827	45	5	$12.50	$93.75	$593.75
5	P77168	44	4	$12.50	$75.00	$575.00
6	C32408	39		$12.50		$487.50
7	E41231	52	12	$14.00	$252.00	$812.00
8	C43839	42	2	$14.00	$42.00	$602.00
9	C69848	41	1	$14.00	$21.00	$581.00
10	J51549	38		$14.00		$532.00
11	E48505	48	8	$17.00	$204.00	$884.00
12	E34572	36		$17.00		$612.00
13	P30731	40		$17.50		$700.00

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12. June/2020/Paper_13/No.10

Lastri uses spreadsheet models for her company. She uses them to forecast trends of sales of particular products as well as forecasting the company's annual income, expenditure and profits.

By weighing up the advantages and disadvantages, evaluate the effectiveness of spreadsheet models when used specifically for this type of forecasting.

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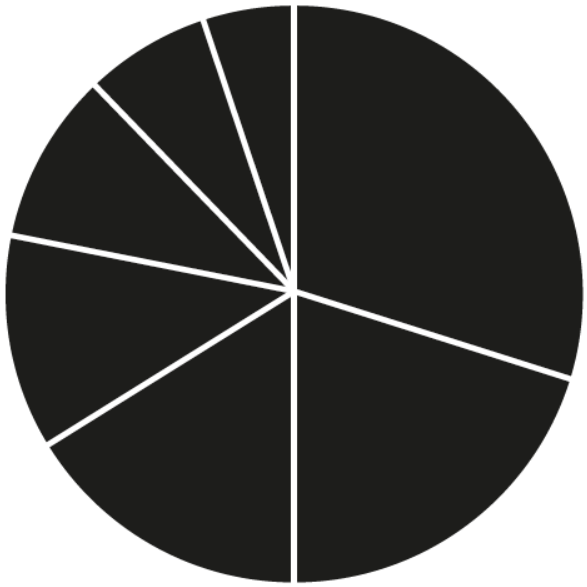
13. June/2020/Paper_13/No.14



The pie chart shows the land areas of seven continents. In its present form it is not providing any information.

(a) Describe, using examples related to this scenario, how you would improve this chart so that it will provide information which could be used by geography students in a school.

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(b) Some people are very critical about pie charts.

Describe the disadvantages of using pie charts to represent data.

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