

# **Your guide to ACCA session CBEs**

**(LW and TX variant exams)**

**This document explains what types of questions are used in session computer based exams (CBEs) for LW and TX variants, as well as guidance on how to best use the exam functionality to navigate through the exam and answer questions.**

**WHAT ARE SESSION CBEs LIKE?**

Session CBEs use the same kind of technology found in today's workplace, including specially designed spreadsheet and word processing question types. This means the exams closely reflect how a modern finance professional works, boosting your employability skills.

There are two types of question found in session CBEs for LW and TX variants:

- Objective Test questions (also known as **OT questions**, which are currently all multiple choice questions (MCQs))
- longer, **Constructed Response questions**.

The following section of the guide tells you more about each question type and how they work.

## Objective Test questions

OT questions are single, short questions that are auto-marked and worth two marks each, or one or two marks each for LW variant exams. Students have to answer the whole question correctly to earn the marks.

**There are no partial marks.**

### MULTIPLE CHOICE QUESTIONS

Multiple choice questions are also used in paper exams. Students need to choose one answer from a number of given options.

The screenshot shows a digital exam interface. At the top right, it says 'Time Remaining 00:44:25' and '2 of 4'. Below the header, there are icons for 'Scratch Pad', 'Symbol', and 'Calculator'. The question text reads: 'Caddy Co acquired 240,000 of Ambel Co's 800,000 equity shares for \$6 per share on 1 October 20X4. Ambel Co's profit after tax for the year ended 30 September 20X5 was \$400,000 and it paid an equity dividend on 20 September 20X5 of \$150,000. On the assumption that Ambel Co is an associate of Caddy Co, what would be the carrying amount of the investment in Ambel Co in the consolidated statement of financial position of Caddy Co as at 30 September 20X5?'. Below the question, there are four multiple choice options: A. \$1,515,000, B. \$1,560,000, C. \$1,395,000, and D. \$1,090,000. At the bottom of the interface, there is a 'References/Help' link on the left and navigation buttons for 'Previous', 'Navigator', and 'Next' on the right.

Time Remaining 00:44:25  
2 of 4

Scratch Pad Symbol Calculator

Caddy Co acquired 240,000 of Ambel Co's 800,000 equity shares for \$6 per share on 1 October 20X4. Ambel Co's profit after tax for the year ended 30 September 20X5 was \$400,000 and it paid an equity dividend on 20 September 20X5 of \$150,000.

On the assumption that Ambel Co is an associate of Caddy Co, what would be the carrying amount of the investment in Ambel Co in the consolidated statement of financial position of Caddy Co as at 30 September 20X5?

☐ A. \$1,515,000

☐ B. \$1,560,000

☐ C. \$1,395,000

☐ D. \$1,090,000

References/Help Previous Navigator Next



## Constructed response questions

For these question types, students produce individual written and numerical answers which they insert into blank word processing pages, blank spreadsheets, or pre-formatted templates. A number of standard word processing and spreadsheet functions are available via the menu and tool bar for students to use when responding to the question.

Because students provide unique answers, either in their own words or by calculating and presenting numerical answers in spreadsheets, this section will be marked by an expert. All workings and calculations will be viewed and assessed, just like in paper exams – **this means, for example, that if students use any formulae for the spreadsheet questions, markers will see the formulae and not just the final answer, so they will understand how students have reached their answers.**

This image shows an example of a question where students have to produce their answer in a blank spreadsheet.

**Required:**

(a) Calculate the following values for the investment proposal:

(i) net present value; (5 marks)

(ii) internal rate of return; (3 marks)

(iii) return on capital employed (accounting rate of return) based on average investment. (3 marks)

**Table 1: Investment Costs**

Initial investment	\$2 million
Selling price (current price terms)	\$20 per unit
Expected selling price inflation	3% per year
Variable operating costs (current price terms)	\$8 per unit
Fixed operating costs (current price terms)	\$170,000 per year
Expected operating cost inflation	4% per year

The research and development division has prepared the following demand forecast as a result of its test marketing trials. The forecast reflects expected technological change and its effect on the anticipated life-cycle of Product W33.

**Table 2: Demand Forecast**

Year	1	2	3	4
Demand (units)	60,000	70,000	120,000	45,000

It is expected that all units of Product W33 produced will be sold, in line with the company's policy of keeping no inventory of finished goods. No terminal value or machinery scrap value is expected at the end of four years, when production of Product W33 is planned to end. For investment appraisal purposes, Vip Co uses a nominal (money) discount rate of 10% per year and a target return on capital employed of 30% per year. Ignore taxation.

The spreadsheet interface shows a grid with columns A through H and rows 1 through 27. A small box is visible in cell D7.

This image shows an example of a question where students have to produce their answer in a pre-formatted spreadsheet.

Scratch Pad Symbol Calculator

You are a trainee accountant and your manager has asked you to correct a corporation tax computation which has been prepared by the managing director of Naive Ltd. The corporation tax computation is for the year ended 31 March 2016 and contains a significant number of errors:

**Naive Ltd - Corporation tax computation for the year ended 31 March 2016**

Trading profit (working 1)	£ 372,900
Loan interest received (working 2)	32,100
	<b>405,000</b>
Corporation tax (405,000 at 20%)	81,000

**Working 1 - Trading profit**

Profit before taxation	£ 274,530
Depreciation	15,740
Donations to political parties	400
Qualifying charitable donations	900
Accountancy	2,300
Legal fees in connection with the issue of loan notes (the loan was used to finance the company's trading activities)	5,700
Entertaining suppliers	3,600
Entertaining employees	1,700
Gifts to customers (pens costing £40 each and displaying Naive Ltd's name)	920
Gifts to customers (food hampers costing £45 each and displaying Naive Ltd's name)	1,650
Capital allowances (working 3)	65,460
Trading profit	<b>372,900</b>

**Working 2 - Loan interest received**

Loan interest receivable	£ 32,800
Accrued at 1 April 2015	10,600
Accrued at 31 March 2016	(11,300)
Loan interest received	<b>32,100</b>

**Required:**

(a) Prepare a revised version of Naive Ltd's corporation tax computation for the year ended 31 March 2016.

**Note:** Your calculations should commence with the profit before taxation figure of £274,530, and you should indicate by the use of zero (0) any items in the computation of the trading profit for which no adjustment is required. (12 marks)

Time Remaining 00:44:25  
2 of 4  
Flag for Review

Edit Format

11 100%

Naive Ltd - Trading profit for the year ended 31 March 2016

1	Naive Ltd - Trading profit for the year ended 31 March 2016					
2						
3					£	
4	Profit before taxation				274,530	
5	Depreciation					
6	Donations to political parties					
7	Qualifying charitable donations					
8	Accountancy					
9	Legal fees					
10	Entertaining suppliers					
11	Entertaining employees					
12	Gifts to customers - pens					
13	Gifts to customers - food hampers					
14	Capital allowances					
15						
16	Trading profit					
17						
18						
19	Naive Ltd - Corporation tax computation for the year ended 31 March 2016					
20						
21					£	
22						
23						
24						
25						
26						
27						

References/Help Previous Navigator Next

This image shows an example of a question where students have to produce their answer in a blank word processing page.

Scratch Pad Symbol Calculator

Thatcher International Park (TIP) is a theme park and has for many years been a successful business, which has traded profitably. About three years ago the directors decided to capitalise on their success and reduced the expenditure made on new thrill rides, reduced routine maintenance where possible (deciding instead to repair equipment when it broke down) and made a commitment to regularly increase admission prices. Once an admission price is paid customers can use any of the facilities and rides for free.

These steps increased profits considerably, enabling good dividends to be paid to the owners and bonuses to the directors. The last two years of financial results are shown below.

	20X4	20X5
	£	£
Sales	5,250,000	5,320,000
Less expenses:		
Wages	2,500,000	2,200,000
Maintenance - routine	80,000	70,000
Repairs	260,000	320,000
Directors' salaries	150,000	160,000
Directors' bonuses	15,000	18,000
Other costs (including depreciation)	1,200,000	1,180,000
Net profit	<b>1,045,000</b>	<b>1,372,000</b>
Book value of assets at start of year	13,000,000	12,000,000
Dividend paid	500,000	650,000
Number of visitors	150,000	140,000

TIP operates in a country where the average rate of inflation is around 1% per annum.

**(a) Assess the financial performance of TIP using the information given above. (14 marks)**

Paragraph

References/Help Previous Navigator Next

This image shows an example of a question where students have to produce their answer in a pre-formatted word processing page.

For more information on Constructed Response questions, please refer to the 'Constructed Response Questions: Help and Guidance' section on page 11 – this is a guidance document which will be available to students during the exam through the 'help' feature. It will also be available in the specimen exams.

Scratch PadSymbolCalculator

Time Remaining 00:44:25  
2 of 4

Flag for Review

**In respect of the internal control of Baggio International Co:**

(i) **Identify and explain SIX deficiencies;**  
(ii) **Recommend a control to address each of these deficiencies; and**  
(iii) **Describe a test of control Suarez & Co would perform to assess whether each of these controls, if implemented, is operating effectively. (18 marks)**

Note: The total marks will be split equally between each part.

Paragraph

Control Deficiency

Control recommendation

Test of control

References/HelpPreviousNavigatorNext

# Exam functionality explained

## FLAG FOR REVIEW

When a student is on a question they can flag it for review. They can then revisit it later in the exam.

## NEXT AND PREVIOUS BUTTONS

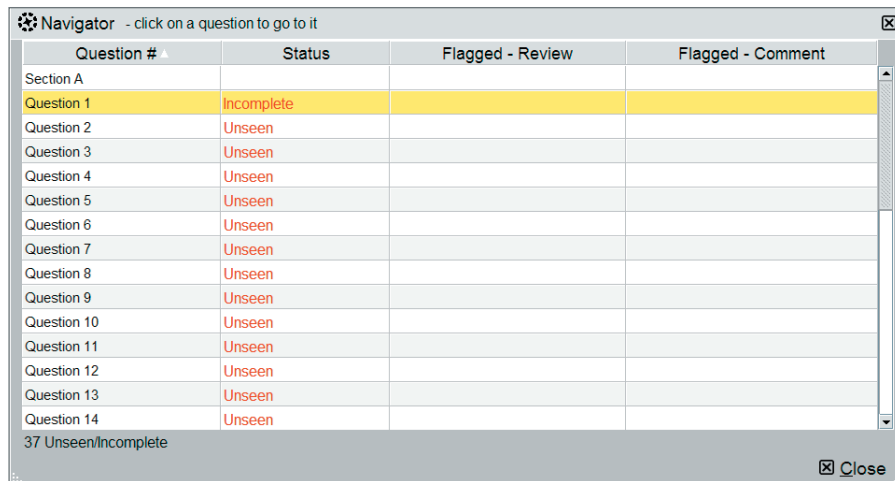
Next and previous buttons allows students to navigate back and forth through the exam questions.

## NAVIGATOR TOOL

This allows students to navigate to any question within the exam, instead of using the 'next' and 'previous' buttons. The navigator tool displays if a question has been flagged for review, if a question has been answered, if a question is incomplete or if a question has not been viewed by the student.

Status definitions:

- **Complete** – you have attempted the question. (Note that multiple response and hot area questions will show as complete even if you have not answered in full.)
- **Incomplete** – you have viewed the question but not attempted it. (Note that drag and drop and fill in the blank questions with more than one response area will show as incomplete until you have answered in full.)
- **Unseen** – you have not viewed the question.



The screenshot shows a 'Navigator' window with a table of questions. The table has four columns: 'Question #', 'Status', 'Flagged - Review', and 'Flagged - Comment'. The first row, 'Question 1', is highlighted in yellow and has a status of 'Incomplete'. The remaining questions, from 'Question 2' to 'Question 14', are listed with a status of 'Unseen'. At the bottom of the window, it says '37 Unseen/Incomplete' and there is a 'Close' button.

Question #	Status	Flagged - Review	Flagged - Comment
Section A			
Question 1	Incomplete		
Question 2	Unseen		
Question 3	Unseen		
Question 4	Unseen		
Question 5	Unseen		
Question 6	Unseen		
Question 7	Unseen		
Question 8	Unseen		
Question 9	Unseen		
Question 10	Unseen		
Question 11	Unseen		
Question 12	Unseen		
Question 13	Unseen		
Question 14	Unseen		

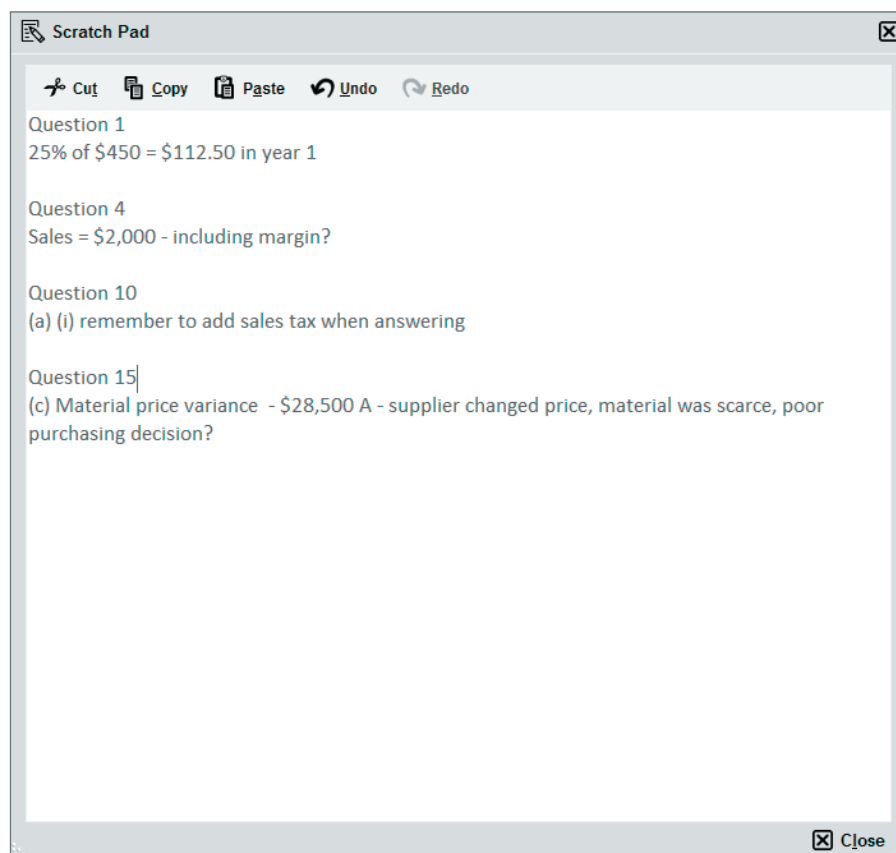
## TIME AND EXAM PROGRESS

The question number and time remaining in the exam both appear on screen as default, but can be hidden by the student if they choose to. A message will display on screen when there are 15 minutes of the exam remaining.

### SCRATCH PAD

For students who like an area to do rough workings, there's an on screen scratch pad for notes and calculations that will be available throughout the exam (please note students will also be given scrap paper at the exam centre if they want to jot any notes down that way). The scratch pad retains all notes/workings entered for all questions, and these are available to students for the duration of the exam.

It's really important to remember that what's written in the scratch pad or on the paper notes won't be marked! So, if a student has any notes or workings for the constructed response questions that they want the marker to see, they need to make sure they do these within the spreadsheet or word processing tools.



### CALCULATOR

An on-screen calculator will be available, and students can choose between a standard or scientific calculator.

Students are also allowed to bring their own calculator to the exam, provided it does not have the facility to store or display text.





## HIGHLIGHT AND STRIKETHROUGH

Students can highlight or strikethrough parts of the question scenario, and this will remain on the scenario if the student moves between a number of requirements within the question. As you can see in the images below, highlighting can be used to emphasise key elements of the scenario, and strikethrough can be used to indicate that you have dealt with, for example, a figure in the trial balance.

## COPY AND PASTE

You can copy text from the Scratch Pad or question scenario and paste it into your answers in the constructed response section of the exam using the Ctrl-C (Copy) and Ctrl-V (Paste) shortcuts. Note: When pasting into a spreadsheet you must double-click the cell or paste directly into the formula bar.

Division: Product W33 will be manufactured using a fully automated process which would significantly increase noise levels from Vip Co's factory. The following information relating to this investment proposal has now been prepared:

Initial investment	\$2 million
Selling price (current price terms)	\$20 per unit
Expected selling price inflation	3% per year
Variable operating costs (current price terms)	\$9 per unit
Fixed operating costs (current price terms)	\$3 million per year
Expected operating cost inflation	4% per year

The research and development division has prepared the following demand forecast as a result of its test marketing trials:

Year	1	2	3	4
Demand (units)	60,000	70,000	120,000	45,000

It is expected that all units of Product W33 produced will be sold, in line with the company's policy of selling all working stock at the current price. The terminal value of machinery scrap value is expected to be 10% of the book value of Product W33 at the end of year 4.

Required:

- Calculate the following values for the investment proposal:
  - net present value: (5 marks)
  - internal rate of return: (5 marks)
  - return on capital employed (accounting rate of return) based on average investment. (3 marks)
- Summarise your findings in each section of (a) previously and advise whether the investment proposal is financially acceptable. (3 marks)
- How the objectives of Vip Co's stakeholders may be in conflict if the project is undertaken. (4 marks)

## F7 Financial Reporting

**Explain Answer** **Scratch Pad** **Symbol** **Highlight** **Strikethrough** **Calculator**

**This scenario relates to three requirements.**

After preparing a draft statement of profit or loss for the year ended 30 September 20X5 and adding the current year's draft profit (before any adjustments required by notes (1) to (3) below) to retained earnings, the summarised trial balance of Kandy Co as at 30 September 20X5 is:

	\$'000	\$'000
Equity shares of \$1 each		20,000
Retained earnings as at 30 September 20X5		15,500
Proceeds of 6% loan note (note (1))		30,000
Investment properties at fair value (note (2))	20,000	
Land (\$5 million) and buildings – at cost (note (2))	35,000	
Plant and equipment – at cost (note (2))	58,500	
Accumulated depreciation at 1 October 20X4:		
buildings		20,000
plant and equipment		34,500
Current assets	68,700	
Current liabilities		43,400

### HELP FEATURE

This button will have a different label depending on the exam:

- Corporate and Business Law – Help
- Taxation – Tax Tables/Help

Relevant reference materials will be available in certain exams. Taxation will include tax tables.

All of the exams include help on the CBE functionality, for example a recap of the basic navigation and overview instructions shown at the start of the exam.

Spreadsheet formulae and tips give a list of the formulae that could be used within the exam (please note students will need to type the appropriate formula into their answers – shortcuts are not available). There are additional tips on formatting and functionality. Please see Appendix 1 for further detail.

### ITEM REVIEW SCREEN

The item review screen is shown at the end of the exam and is similar to the navigator tool. So, it displays if a question has been flagged for review, if a question has been answered, if a question is incomplete or if a question has not been viewed by the student. Students can also end their exam from this screen.

### SCROLLING

If a question shows a scroll bar, students must use this to expose the full area before they can progress to the next question. This ensures they don't miss any information.

A warning message will display to remind you that you cannot navigate away from a question if you have not viewed all of the question content. Ensure that you use all scrollbars and/or open any on-screen exhibits before navigating from each question.

### SPLITTER BAR

Some questions in the exams have the question and answer sections of the screen divided by a splitter bar, which may be horizontal or vertical. Students can drag this splitter bar across the screen to give them more or less space for the question or answer section as desired.

### CLOSE ALL

You can close each window (eg calculator, scratch pad) individually or close all windows at once by selecting 'close all' from the top toolbar.

# Constructed Response Questions

## Help and Guidance

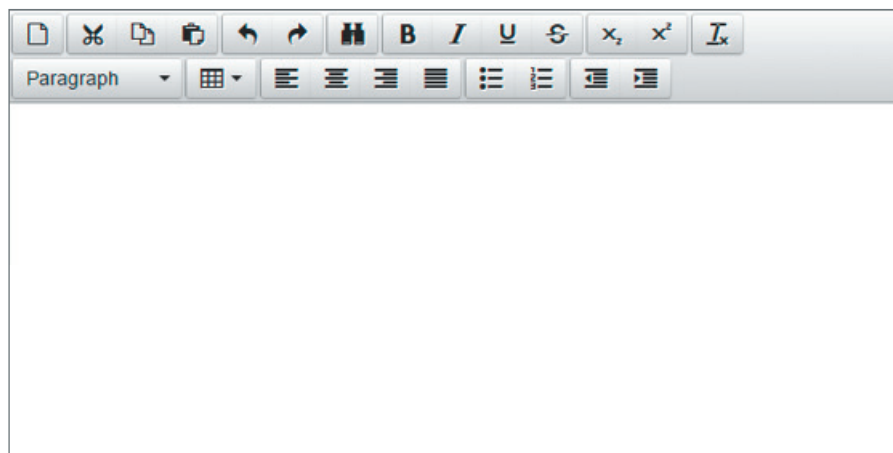
The following pages provide information on constructed response questions, such as available functionality and instructions which should be followed when answering the questions.

### WORD PROCESSING QUESTIONS








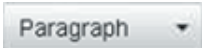
- You are required to enter your answer into a word processing response area.
- You will either be presented with:
  - a blank word processing area within which you enter your answer; or
  - a pre-formatted area (a template) within which you should complete your answer.
- The scenario and answer area are divided by either a horizontal or vertical splitter bar. You can move this splitter bar to see more or less of the scenario or answer area as required.





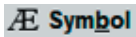
### FUNCTIONS

- A number of word processing functions are available via the tool bar for you to use when responding to the question.



The toolbar functions are:

Toolbar icon(s)	Function	Additional guidance/shortcuts
	<b>Reset</b>	Care should be taken with this icon. Only select this if you want to clear your full response and start again.  You will be presented with a message asking you to confirm if you wish to proceed.
	<b>Cut Copy Paste</b>	Ctrl-X (Cut) Ctrl-C (Copy) Ctrl-V (Paste)
	<b>Undo Redo</b>	Ctrl-Z (Undo) Ctrl-Y (Redo)  These allow you to undo/redo your last action(s).  <b>Note:</b> If your last action was resetting your response, Undo will restore a Word Processing response (but will not restore a Spreadsheet response so care must be taken when resetting responses.)
	<b>Find and Replace</b>	Ctrl-F
	<b>Bold Italic Underline Strikethrough</b>	Ctrl-B (Bold) Ctrl-I (Italic) Ctrl-U (Underline)
	<b>Subscript Superscript</b>	
	<b>Clear Formatting</b>	
	<b>Paragraph</b>	You can choose from six font sizes.

Toolbar icon(s)	Function	Additional guidance/shortcuts
	<b>Tables</b>	Standard table features including cell, row and column functions.
	<b>Left Align Centre Right Align Justify</b>	
	<b>Bulleted List Numbered List</b>	You can enter text as either bulleted or numbered lists.
	<b>Decrease Indent Increase Indent</b>	
	<b>Select All</b>	Ctrl-A (no toolbar icon available)
 <b>Symbol</b>		Add a selection of currency symbols to your answer by selecting this icon on the top toolbar.

### SPREADSHEET QUESTIONS


- You are required to enter your answer into a spreadsheet response area.
- You will either be presented with:
  - a blank spreadsheet within which you enter your answer; or
  - a pre-formatted area (a template) within which you should complete your answer.
- The scenario and answer area are divided by either a horizontal or vertical splitter bar. You can move this splitter bar to see more or less of the scenario or answer area as required.
- Spreadsheet questions will not be used in LW exams.
- You can copy text from the Scratch Pad or question scenario and paste it into your answer using the Ctrl-C (Copy) and Ctrl-V (Paste) shortcuts.
  - When pasting into a spreadsheet you must double-click the cell or paste directly into the formula bar.
  - Pasting text from the question scenario/Scratch Pad into a spreadsheet will place it into one spreadsheet cell.



## SPREADSHEET INSTRUCTIONS

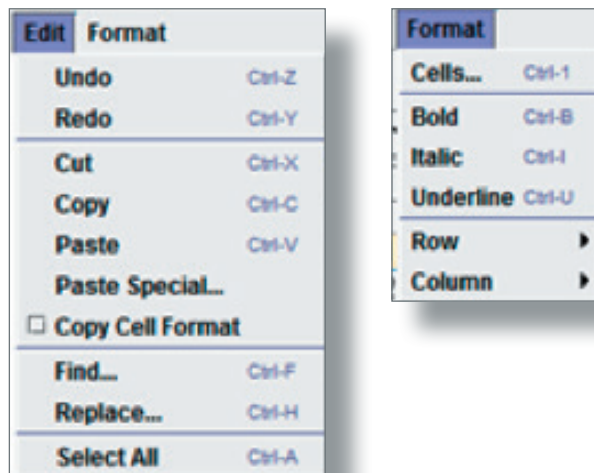
- The spreadsheet response can only be made up of one worksheet. It is not possible for you to add another worksheet.
- If you have been provided with a pre-formatted response (template) some data within the spreadsheet may be protected so you cannot change it.
- You **cannot enter or delete rows or columns** within the spreadsheet. If you wish to re-arrange your answer please use the copy and paste functions.
- If you wish to add cell borders or styles, you can do this by:
  - right-clicking the cell and selecting Format Cells, or
  - selecting the Format Cells function from the Format menu.

You must select the style and/or colour and then the selected border (eg Outline, Left, Horizontal).

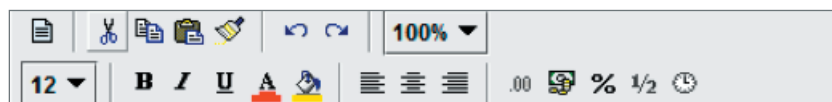
- Please only use cell colours in your answer if necessary.
- Selecting cells and using the drag handle to fill other cells (where no formulae are applied) copies and pastes the exact contents of the selected cells. In an example where 1 and 2 have been entered as numbers, the result is 1, 2, 1, 2 instead of the sequence being extended (eg 1, 2, 3, 4).
- You can add a selection of currency symbols to your answer by selecting on  the top toolbar.
- Guidance on commonly used spreadsheet functions and formulae is provided below.

## FUNCTIONS




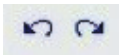




- A number of spreadsheet functions are available via:
  - the Edit and Format menus:



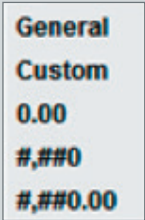




– the toolbar:



The toolbar functions are outlined below:

Toolbar icon(s)	Function	Additional guidance/shortcuts
	<b>Reset</b>	Care should be taken with this icon. Only select this if you want to clear your full response and start again.  You will be presented with a message asking you to confirm if you wish to proceed.
	<b>Cut Copy Paste</b>	Ctrl-X (Cut) Ctrl-C (Copy) Ctrl-V (Paste)  If you are cutting, copying and pasting between cells within the spreadsheet response, you can also use the right click menu options.
	<b>Format painter</b>	This allows you to copy the format from a selected object or text and apply it to other objects or text.
	<b>Undo Redo</b>	Ctrl-Z (Undo) Ctrl-Y (Redo)  These allow you to undo/redo your last action(s).  <b>Note:</b> If your last action was resetting a Spreadsheet response, Undo will <b>not</b> restore your response so care must be taken when resetting responses.
	<b>Zoom</b>	This allows you to reduce/increase the display of the document.
	<b>Font size</b>	
	<b>Bold Italic Underline</b>	Ctrl-B (Bold) Ctrl-I (Italic) Ctrl-U (Underline)
	<b>Font colour</b>	

Toolbar icon(s)	Function	Additional guidance/shortcuts
	<b>Cell fill colour</b>	<p>Please only use cell colours in your answer if necessary.</p> <p>This function can also be accessed by right-clicking the cell and selecting Format Cells.</p>
	<b>Left Align</b> <b>Centre</b> <b>Right Align</b>	
	<b>Number formats</b> 	<p>This allows you to format cell numbers.</p> <p>Select 'Custom' to access a number of formatting options.</p> <p>This function can also be accessed by right-clicking the cell and selecting Format Cells.</p>
	<b>Currency formats</b> 	<p>This allows you to select a currency format.</p> <p>Select 'Custom' to access a number of formatting options, including the \$ symbol.</p> <p>This function can also be accessed by right-clicking the cell and selecting Format Cells.</p>
	<b>Percentage formats</b> 	<p>This allows you to display the cell in a percentage format.</p> <p>Select 'Custom' to access a number of formatting options.</p> <p>This function can also be accessed by right-clicking the cell and selecting Format Cells.</p>

Toolbar icon(s)	Function	Additional guidance/shortcuts
	<b>Fraction formats</b> <div> # ?/?  # ??/?? </div>	<p>This allows you to display the cell in a fraction format.</p> <p>Select 'Custom' to access a number of formatting options.</p> <p>This function can also be accessed by right-clicking the cell and selecting Format Cells.</p>
	<b>Date/Time formats</b> <div> dd/mm/yyyy  dd-mmm-yy  dd-mmm  mmm-yy  h:mm AM/PM  h:mm:ss AM/PM  hh:mm  hh:mm:ss  dd/mm/yyyy hh:mm  mm:ss  [h]:mm:ss  mm:ss.0 </div>	<p>This allows you to select a date/time format for the cell.</p> <p>Select 'Custom' to access a number of formatting options.</p> <p>This function can also be accessed by right-clicking the cell and selecting Format Cells.</p>

**COMMONLY USED SPREADSHEET FORMULAE**

- You must use the = symbol to start a formula in a cell.
- Guidance on commonly used formulae and examples of these are provided in the table below.

Function	Syntax	Description	Example Formulae
<b>Sum</b>	<b>=SUM(number1,[number2],...)</b>  <b>number1 (required) – the first number argument to be added.</b>  <b>number2,... (optional) – additional number arguments to be added.</b>	Adds everything you specify as arguments.  An argument can be, for example, a number, range, cell reference.	=SUM(B2:B8) adds all the numbers in cells B2 to B8.  =SUM(A1, A3, A5) adds the numbers in cells A1, A3, and A5.
<b>Average</b>	<b>=AVERAGE(number1,[number2],...)</b>  <b>number1 (required) – the first number, cell reference or range for which you want the average</b>  <b>number2,... (optional) – additional numbers, cell references or ranges for which you want the average</b>	Provides the average of everything you specify as arguments.	=AVERAGE(B2:B15) provides the average of the numbers in cells B2 to B15.
<b>Square root</b>	<b>=SQRT(number)</b>  <b>number (required) – the number for which you want the square root.</b>	Returns a positive square root	=SQRT(J11)- returns the number 2 if the number in cell J11 was 4
<b>Power</b>	<b>=POWER(number,power)</b>  <b>number (required) – the base number (must be a real number)</b>  <b>power (required) – the exponent to which the base number is raised.</b>	Returns the number raised to a power  Can also be used to apply multiple roots.	=POWER(3,2) returns the figure 9 (3 squared) =POWER(27, 1/3) returns the figure 3 (cube root of 27) = POWER(81,1/4) returns the figure 3 (fourth root of 81)



Function	Syntax	Description	Example Formulae
<b>Count</b>	<b>=COUNT(value1,[value2],...)</b>  <b>value1 (required)</b> – the item, cell reference, or range you want to count numbers within.  <b>value2,... (required)</b> - additional numbers, cell references or ranges to be counted.	Counts the number of cells that contain numbers.	=COUNT(C4:C8) – if 3 of the cells between C4 and C8 contain numbers, the result will be 3.
<b>Round</b>	<b>=ROUND(number,num_digits)</b>  <b>number (required)</b> – the number you wish to round  <b>num_digits</b> – the number of digits which you wish to round the number argument to.	Rounds a number to the requested number of digits.	=ROUND(C4, 2) – this would round the number in cell C4 to 2 digits.
<b>Log</b>	<b>=LOG(number,[base])</b>  <b>number (required)</b> – the positive real number for which you want the logarithm  <b>base (optional)</b> – base of the logarithm. Note - if base is omitted it is assumed to be 10.	Returns the logarithm of a number of the base you specify.	=LOG(J11,2) – if the number in cell J11 was 8, returns a logarithm of 8 with base 2 (ie 3).
<b>NPV</b>	<b>=NPV(rate,value1,[value2],...)</b>  <b>rate (required)</b> – the discount rate given as a decimal  <b>value1 (required)</b> – the item, cell reference, or range you want to discount cash flows within.  <b>value2,... (required)</b> – additional numbers, cell references or ranges to be discounted.	Calculates the net present value of an investment based on a supplied discount rate and a series of future cash flows.	=NPV(0.1,B12:E12) – discount values in cells B12-E12 at a discount rate of 10%, with B12 being Year 1

Function	Syntax	Description	Example Formulae
<b>IRR</b>	<b>=IRR(values,[guess])</b>  <b>values (required)</b> – the range of cash flows for which you want the internal rate of return.  <b>guess (optional)</b> – a rate you think is close to the result of the IRR given as a decimal.	Calculates the internal rate of return for a series of cash flows.	=IRR(B15:F15,0.12) – calculates the internal rate of return of cells B15-F15 using 0.12 as an estimate, with B15 being Year 0.



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