## Your guide to ACCA session CBEs

# This document explains what types of questions are used in session computer based exams (CBEs), 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 three types of question found in session CBEs:

- Objective Test questions (also known as OT questions)
- OT Case questions
- 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. Students have to answer the whole question correctly to earn their two marks. There are no partial marks.

The next few pages give definitions of the different types of OT question, along with examples of what these might look like.

## MULTIPLE CHOICE

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

## MULTIPLE RESPONSE

These are a kind of multiple choice question, except students need to select more than one answer from a number of given options. The question will specify how many answers need to be selected, but the system won't stop students from selecting more answers than this, so it's important to read the question carefully.



## FILL IN THE BLANK

This question type requires students to type an answer into a box. The unit of measurement will sit outside the box, and if there are specific rounding requirements these will be displayed.

The only permitted characters for this question type are:

- Numbers
- One full stop as a decimal point if required
- One minus symbol at the front of the figure if the answer is negative
For example: -10234.35
No other characters, including commas, are accepted.


## DRAG AND DROP

Drag and drop questions involve students dragging an answer and dropping it into place. Some questions could involve matching more than one answer to a response area and some questions may have more answer choices than response areas, which means not all available answer choices need to be used.


## DROP DOWN LIST

This question type requires students to select one answer from a drop down list. Some of these questions may contain more than one drop down list and an answer has to be selected from each one.

## HOT SPOT

For hot spot questions, students are required to select one point on an image as their answer. When the cursor is hovered over the image, it will display as an " $X$ ". To answer, place the $X$ on the appropriate point on the diagram. The image will have been set so that as long as part of the $X$ is touching the specific part of the image that represents the correct answer, it will be marked correct, but not if it is also touching another possible answer.

```
國 Scratch Pad Æ Symbol Olalculator
On 1 October 20x4, Pyramid Co acquired 80% of Square Co's 9 million ($1) equity shares. At the date of acquisition, Square Co had an item of plant which had a fair value of $3m
in excess of its carying amount. At the date of acquisition it had a remaining life of five years.
M Pyramid Co''s policy is sto value non-controling interests at fair value at the date of acquistion. For this purpose, Square Co's shares had a value of $3.50 each at that date. In the 
At what amount should the non-controlling interests of Square Co be valued in the consolidated statement of financial position of Pyramid Co as at 30 September
20X5?
Select... - 
A leisure company owns a number of large health and fitess resorts, but one is suffering from decining sales and is predicted to make a loss in the next year. As a result
management have identified a number of possible actions.
(1) Shut down the resort and sell off the assets
(2) Undertake a major upgrade to facilities costing \(\$ 4.5 \mathrm{~m}\)
(3) Undertake a minor upgrade to facilities costing \(\$ 2 \mathrm{~m}\)
The upgrades are predicted to have variable results and the probability of good results after a major upgrade is 0.8 , whereas the probability of good results after a minor upgrade is
The
0.7.
The company is risk neutral and has prepared the following decision tree.
Using the information below, identify, by clicking on the relevant branch of the decision tree, which action the company should take.


\section*{HOT AREA}

These are similar to hot spot questions, but instead of selecting a specific point students are required to select one or more areas in an image. It's important to read the question carefully because the Navigator and Item Review screens will show these questions as complete even if you have not provided a full answer.

\section*{Objective Test Case questions}

Each OT case contains a group of five OT questions based around a single scenario. These can be any combination of the single OT question types and they are auto-marked in the same way as the single OT questions.

OT cases are worth 10 marks (each of the five OTs within it are worth two marks, and as with the OT questions described above, students will receive either two marks or zero marks for those individual questions).

OT cases are written so that there are no dependencies between the individual questions. So, if a student gets the first question wrong, this does not affect their ability to get the other four correct.

The OT case scenario remains on screen so students can see it while answering the questions. However, a moveable splitter bar enables the student to focus on either the scenario or the questions.

The following page shows an example of a single scenario with five OT questions.


\section*{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.


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

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


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 15 - 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.


\section*{Exam functionality explained}

\section*{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.

\section*{NEXT AND PREVIOUS BUTTONS}

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

\section*{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.

\section*{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.
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{4}{|l|}{\%) Navigator - click on a question to go to it} & 区 \\
\hline Question \# & Status & Flagged - Review & Flagged - Comment & \\
\hline Section A & & & & \(\bullet\) \\
\hline Question 1 & Incomplete & & & \\
\hline Question 2 & Unseen & & & \\
\hline Question 3 & Unseen & & & \\
\hline Question 4 & Unseen & & & \\
\hline Question 5 & Unseen & & & \\
\hline Question 6 & Unseen & & & \\
\hline Question 7 & Unseen & & & \\
\hline Question 8 & Unseen & & & \\
\hline Question 9 & Unseen & & & \\
\hline Question 10 & Unseen & & & \\
\hline Question 11 & Unseen & & & \\
\hline Question 12 & Unseen & & & \\
\hline Question 13 & Unseen & & & \\
\hline Question 14 & Unseen & & & - \\
\hline 37 Unseen/Incomplete & & & & \\
\hline \multicolumn{5}{|r|}{区 Close} \\
\hline
\end{tabular}

\section*{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.

\section*{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．

\section*{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．

屋 Scratch Pad

Question 1
\(25 \%\) of \(\$ 450=\$ 112.50\) in year 1

Question 4
Sales \(=\$ 2,000\)－including margin？

Question 10
（a）（i）remember to add sales tax when answering
Question 15
（c）Material price variance－\(\$ 28,500 \mathrm{~A}\)－supplier changed price，material was scarce，poor purchasing decision？


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.

\section*{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.

\section*{HELP FEATURE}

This button will have a different label depending on the exam:
- Financial Reporting and Audit and Assurance - Help
- Performance Management and Financial Management - Formulae Sheet/Help
- Taxation - Tax Tables/Help

Relevant reference materials will be available in certain exams. Performance Management and Financial Management will include a formulae sheet and 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.


F7 Financial Reporting


\section*{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:
\begin{tabular}{|l|r|r|}
\hline & \(\mathbf{\$ \prime 0 0 0}\) & \(\mathbf{\$ \prime 0 0 0}\) \\
\hline Equity shares of \$1 each & & 20,000 \\
\hline Retained earnings as at 30 September 20X5 & & 15,500 \\
\hline Proceeds of 6\% loan note (note (1)) & & 30,000 \\
\hline Investment properties at fair value (note (2)) & 20,000 & \\
\hline Land (\$5 million) and buildings - at cost (note (2)) & 35,000 & \\
\hline Plant and equipment - at cost (note (2)) & 58,500 & \\
\hline Accumulated depreciation at 1 October 20X4: & & \\
\hline \multicolumn{3}{|c|}{ buildings } \\
\hline plant and equipment & & 20,000 \\
\hline & & 34,500 \\
\hline Current assets & 68,700 & \\
\hline Current liabilities & & 43,400 \\
\hline
\end{tabular}

\section*{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.

\section*{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.

\section*{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.

\section*{CLOSE ALL}

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

\section*{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.

\section*{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.

\section*{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:
\begin{tabular}{|c|c|c|}
\hline Toolbar icon(s) & Function & Additional guidance/shortcuts \\
\hline \(\square\) & Reset & \begin{tabular}{l}
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.
\end{tabular} \\
\hline \(x\) ¢ & Cut Copy Paste & \begin{tabular}{l}
Ctrl-X (Cut) \\
Ctrl-C (Copy) \\
Ctrl-V (Paste)
\end{tabular} \\
\hline * & Undo Redo & \begin{tabular}{l}
Ctrl-Z (Undo) \\
Ctrl-Y (Redo) \\
These allow you to undo/redo your last action(s). \\
Note: 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.)
\end{tabular} \\
\hline 植 & Find and Replace & Ctrl-F \\
\hline B \(I \underline{\mathrm{u}}\) & \begin{tabular}{l}
Bold \\
Italic \\
Underline \\
Strikethrough
\end{tabular} & \begin{tabular}{l}
Ctrl-B (Bold) \\
Ctrl-I (Italic) \\
Ctrl-U (Underline)
\end{tabular} \\
\hline \(x_{2} \quad x^{2}\) & \begin{tabular}{l}
Subscript \\
Superscript
\end{tabular} & \\
\hline \(I_{x}\) & Clear Formatting & \\
\hline Paragraph - & Paragraph & You can choose from six font sizes. \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline Toolbar icon（s） & Function & Additional guidance／shortcuts \\
\hline 囲－ & Tables & Standard table features including cell，row and column functions． \\
\hline  & Left Align Centre Right Align Justify & \\
\hline ：三 狺 & Bulleted List Numbered List & You can enter text as either bulleted or numbered lists． \\
\hline 틑 틀 & Decrease Indent Increase Indent & \\
\hline & Select All & Ctrl－A（no toolbar icon available） \\
\hline ¢ Symbol & \multicolumn{2}{|l|}{Add a selection of currency symbols to your answer by selecting this icon on the top toolbar．} \\
\hline
\end{tabular}

\section*{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．
－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．

\section*{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 压 Symbol the top toolbar.
- Guidance on commonly used spreadsheet functions and formulae is provided below.

\section*{FUNCTIONS}
- A number of spreadsheet functions are available via: - the Edit and Format menus:
\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{Edit Format} \\
\hline Undo & Cmz \\
\hline Redo & Cry \\
\hline Cut & CaH \\
\hline Copy & Cuc \\
\hline Paste & CHV \\
\hline Paste Spe & \\
\hline \multicolumn{2}{|l|}{\(\square\) Copy Cell Format} \\
\hline Find & CuF \\
\hline Replace... & CHH \\
\hline Select All & CHA \\
\hline
\end{tabular}

- the toolbar:


The toolbar functions are outlined below:
\begin{tabular}{|c|c|c|}
\hline Toolbar icon(s) & Function & Additional guidance/shortcuts \\
\hline 官 & Reset & \begin{tabular}{l}
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.
\end{tabular} \\
\hline  & \begin{tabular}{l}
Cut \\
Copy \\
Paste
\end{tabular} & \begin{tabular}{l}
Ctrl-X (Cut) \\
Ctrl-C (Copy) \\
CtrI-V (Paste) \\
If you are cutting, copying and pasting between cells within the spreadsheet response, you can also use the right click menu options.
\end{tabular} \\
\hline \[
\otimes
\] & Format painter & This allows you to copy the format from a selected object or text and apply it to other objects or text. \\
\hline \(\cdots \times\) & Undo Redo & \begin{tabular}{l}
Ctrl-Z (Undo) \\
Ctrl-Y (Redo) \\
These allow you to undo/redo your last action(s). \\
Note: If your last action was resetting a Spreadsheet response, Undo will not restore your response so care must be taken when resetting responses.
\end{tabular} \\
\hline 100\% - & Zoom & This allows you to reduce/increase the display of the document. \\
\hline 11 * & Font size & \\
\hline B I \(\underline{\mathrm{U}}\) & \begin{tabular}{l}
Bold \\
Italic \\
Underline
\end{tabular} & \begin{tabular}{l}
Ctrl-B (Bold) \\
Ctrl- (Italic) \\
Ctrl-U (Underline)
\end{tabular} \\
\hline A & Font colour & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline Toolbar icon（s） & Function & Additional guidance／shortcuts \\
\hline － & Cell fill colour & \begin{tabular}{l}
Please only use cell colours in your answer if necessary． \\
This function can also be accessed by right－ clicking the cell and selecting Format Cells．
\end{tabular} \\
\hline 亳 亳 咅 & Left Align Centre Right Align & \\
\hline ． 00 & Number formats & \begin{tabular}{l}
This allows you to format cell numbers． \\
Select＇Custom＇to access a number of formatting options． \\
This function can also be accessed by right－ clicking the cell and selecting Format Cells．
\end{tabular} \\
\hline S & \begin{tabular}{l}
Currency formats \\
```

General <br>
Custom

``` \\
 \\
```

£\＃，\＃\＃\＃．00；－反\＃，\＃\＃\＃ 0.00 <br>
£\＃，\＃\＃0．00；［Red］－£\＃，\＃\＃\＃． 00 <br>
\＃，\＃\＃${ }^{(\#)}$ ；\＃，\＃\＃ <br>
\＃，\＃\＃0；［Red］－\＃，\＃\＃0 <br>
\＃，\＃\＃ 0.00 ；\＃\＃，\＃\＃ 0.00 <br>
\＃，\＃\＃0．00；［Red］－\＃，\＃\＃0．00 <br>
－＊\＃，\＃\＃\＃＿デ\＃，\＃\＃\＃

``` \\
 \\
 \\

\end{tabular} & \begin{tabular}{l}
This allows you to select a currency format． \\
Select＇Custom＇to access a number of formatting options，including the \(\$\) symbol． \\
This function can also be accessed by right－ clicking the cell and selecting Format Cells．
\end{tabular} \\
\hline & Percentage formats & \begin{tabular}{l}
This allows you to display the cell in a percentage format． \\
Select＇Custom＇to access a number of formatting options． \\
This function can also be accessed by right－ clicking the cell and selecting Format Cells．
\end{tabular} \\
\hline
\end{tabular}
\begin{tabular}{|c|l|l|}
\hline Toolbar icon(s) & Function & Additional guidance/shortcuts \\
\hline \multicolumn{1}{|c|}{\(\mathbf{1 / 2}\)} & \begin{tabular}{l} 
Fraction formats \\
\#? ?/? \\
\#??/??
\end{tabular} & \begin{tabular}{l} 
This allows you to display the cell in a fraction \\
format. \\
Select 'Custom' to access a number of \\
formatting options. \\
This function can also be accessed by right- \\
clicking the cell and selecting Format Cells.
\end{tabular} \\
\hline (2) & \begin{tabular}{l} 
Date/Time formats \\
\begin{tabular}{ll} 
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/yyy hh:mm \\
mm:ss \\
[h]:mm:ss \\
mm:ss.0
\end{tabular}
\end{tabular} & \begin{tabular}{l} 
This allows you to select a date/time format \\
for the cell. \\
Select 'Custom' to access a number of \\
formatting options. \\
This function can also be accessed by right- \\
clicking the cell and selecting Format Cells.
\end{tabular} \\
\hline
\end{tabular}

\section*{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.
\(\left.\begin{array}{|l|l|l|l|}\hline \text { Function } & \text { Syntax } & \text { Description } & \text { Example Formulae }\end{array} \left\lvert\, \begin{array}{l}\text { Sum } \begin{array}{l}\text { SUM(number1,[number2],...) } \\ \text { number1 (required) - the first } \\ \text { number argument to be added. } \\ \text { number2,,... (optional) - additional } \\ \text { number arguments to be added. }\end{array}\end{array} \begin{array}{l}\text { Adds everything you } \\ \text { specify as arguments. } \\ \text { An argument can be, } \\ \text { for example, a number, } \\ \text { range, cell reference. } \\ \text { the numbers in cells B2 } \\ \text { to B8. } \\ \text { =SUM(A1, A3, A5) adds } \\ \text { the numbers in cells A1, } \\ \text { A3, and A5. }\end{array}\right.\right\}\)
\begin{tabular}{|c|c|c|c|}
\hline Function & Syntax & Description & Example Formulae \\
\hline Count & \begin{tabular}{l}
=COUNT(value1,[value2],...) \\
value1 (required) - the item, cell reference, or range you want to count numbers within. \\
value \(2, \ldots\) (required) - additional numbers, cell references or ranges to be counted.
\end{tabular} & Counts the number of cells that contain numbers. & \begin{tabular}{l}
\[
=\text { COUNT(C4:C8) - if }
\] \\
3 of the cells between C4 and C8 contain numbers, the result will be 3 .
\end{tabular} \\
\hline Round & \begin{tabular}{l}
=ROUND(number,num_digits) \\
number (required) - the number you wish to round \\
num_digits - the number of digits which you wish to round the number argument to.
\end{tabular} & Rounds a number to the requested number of digits. & \(=\) ROUND \((C 4,2)-\) this would round the number in cell C4 to 2 digits. \\
\hline Log & \begin{tabular}{l}
=LOG(number,[base]) \\
number (required) - the positive real number for which you want the logarithm \\
base (optional) - base of the logarithm. Note - if base is omitted it is assumed to be 10.
\end{tabular} & Returns the logarithm of a number of the base you specify. & \(=\operatorname{LOG}(\mathrm{J} 11,2)-\) if the number in cell J11 was 8, returns a logarithm of 8 with base 2 (ie 3 ). \\
\hline NPV & \begin{tabular}{l}
\(=N P V(\) rate, value1,[value2],...) \\
rate (required) - the discount rate given as a decimal \\
value1 (required) - the item, cell reference, or range you want to discount cash flows within. \\
value \(2, \ldots\) (required) - additional numbers, cell references or ranges to be discounted.
\end{tabular} & 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 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|}
\hline Function & Syntax & Description & Example Formulae \\
\hline IRR & =IRR(values,[guess]) \\
\begin{tabular}{l} 
values (required) - the range of \\
cash flows for which you want the \\
internal rate of return.
\end{tabular} & \begin{tabular}{l} 
Calculates the internal \\
rate of return for a series \\
of cash flows. \\
guess (optional) - a rate you think is \\
close to the result of the IRR given \\
as a decimal.
\end{tabular} & \begin{tabular}{l}
\(=\operatorname{RR}(\mathrm{B} 15: F 15,0.12)-\) \\
calculates the internal \\
rate of return of cells \\
B15-F15 using 0.12 as an \\
estimate, with B15 being \\
Year 0.
\end{tabular} \\
\hline
\end{tabular}```

