

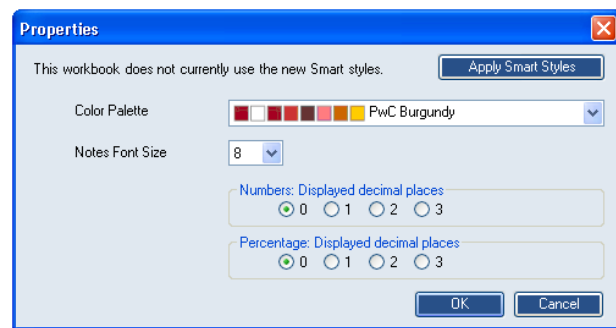
Smart guide for Excel

Smart for Excel introduces a more robust set of Excel functions to help simplify financial analysis and automate commonly used commands. You can create new workbooks and perform the usual tasks such as adding worksheets, inserting Excel tables and charts into PowerPoint and building charts using PwC brand formatted Smart styles. In addition to the usual tasks, Smart can build indices for your workbooks, enable one to add notes on cells where required, provide the ability to create DataPacks for clients and package reports into password-protected PDFs with pre-formatted disclaimer notices. Smart Excel commands work on both Smart and regular Excel workbooks.

Getting Started

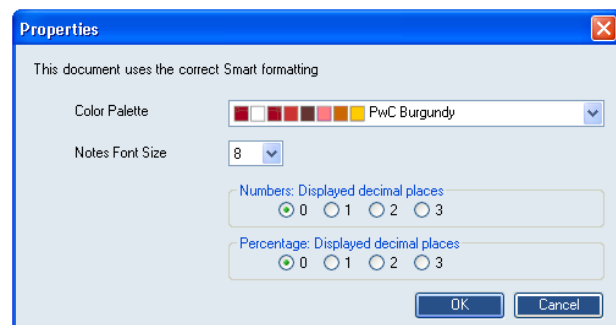
Click **New** in the Smart ribbon to create new workbooks using pre-designed Smart templates or Excel's default New option from the Office button. Note that Smart's list of available templates varies by business and territory. Commonly used ones are explained below.

Applying Smart styles to default Excel workbooks



If you are planning to use default Excel workbooks but would like to keep the firm's consistent brand look and feel, use the Properties command to apply Smart styles into the workbook. This adds Smart colour palettes, fonts, number styles etc. into your file. When the Properties dialog box pops up, click the “Apply Smart Styles” option as seen on the image on the left. Once the styles are loaded into the workbook, the option for applying Smart styles disappears, confirming that the styles had been populated.

Working with Smart workbooks




If you'd like to skip the manual application of Smart styles into regular Excel workbooks, use the preformatted Smart templates from Smart's New dropdown where you'll find a variety of choices. Most territories and businesses have pre-defined Smart templates, cutting the need for users to worry about applying the firm's colours or brand and allowing people to focus on the actual analysis for the engagement. Note that three Smart templates will always be available under the **New** dropdown:

1. **Blank Workbook:** This is nothing but a default Excel workbook but already has Smart styles, themes, colour palettes, i.e. the firm's brand embedded. To change the colour palette, the note font size and displayed decimal places for numbers and percent, click Properties on the Smart ribbon. The window to the left will pop up. Notice that it's similar to the above dialog box without the option to “Apply Smart Styles” because they already exist!

2. **DealTool:** A custom Smart workbook with additional options to populate project headers, project name, number conventions, displayed decimal places and Smart styles as the image below illustrates.

Project Information

This document uses the correct Smart formatting

Color Palette:  Smart Report

Notes Font Size: 8

Numbers: Displayed decimal places
☒ 0 ☐ 1 ☐ 2 ☐ 3

Percentage: Displayed decimal places
☒ 0 ☐ 1 ☐ 2 ☐ 3

Project Name:

Conventions: \$

Worksheet Type 1 / Income statement dates

	Header / Date	Subheader / Status
Column / Period 1:	<input type="text"/>	<input type="text"/>
Column / Period 2:	<input type="text"/>	<input type="text"/>
Column / Period 3:	<input type="text"/>	<input type="text"/>
Column / Period 4:	<input type="text"/>	<input type="text"/>
Column / Period 5:	<input type="text"/>	<input type="text"/>
Column / Period 6:	<input type="text"/>	<input type="text"/>
Column / Period 7:	<input type="text"/>	<input type="text"/>
Column / Period 8:	<input type="text"/>	<input type="text"/>
Column / Period 9:	<input type="text"/>	<input type="text"/>
Column / Period 10:	<input type="text"/>	<input type="text"/>

Worksheet Type 2 / Balance sheet dates

	Header / Date	Subheader / Status
Column / Period end 1:	<input type="text"/>	<input type="text"/>
Column / Period end 2:	<input type="text"/>	<input type="text"/>
Column / Period end 3:	<input type="text"/>	<input type="text"/>
Column / Period end 4:	<input type="text"/>	<input type="text"/>
Column / Period end 5:	<input type="text"/>	<input type="text"/>
Column / Period end 6:	<input type="text"/>	<input type="text"/>
Column / Period end 7:	<input type="text"/>	<input type="text"/>
Column / Period end 8:	<input type="text"/>	<input type="text"/>
Column / Period end 9:	<input type="text"/>	<input type="text"/>
Column / Period end 10:	<input type="text"/>	<input type="text"/>

> Copy Values >

OK Cancel

Similar to Smart for PowerPoint, you can choose the main colour palette for the workbook. Remember to keep your workbook colours consistent with your PowerPoint reports and pitches!

The **Notes Font Size** selector allows you to set the Smart notes' font sizes from point 8 to 14.

Select the displayed number of decimal places for numbers and percentage figures using their corresponding radio buttons on the dialog box.

Enter the project name in the **Project Name** field. It will appear in the Index sheet of your DealTool.

Choose the monetary convention and units from the **Conventions** dropdown or by manually entering the denomination and units in the field. This will appear in the title or header when you add worksheets.

To automatically populate income and balance sheet dates and status for certain periods, type them into each corresponding field. The data you initially add to the "Project Information" dialog box are automatically populated into inserted Smart worksheets. You can add blank worksheets, income statement worksheets and balance sheets into DealTools.

Notice that you also have the choice to add subheaders and headers instead of dates and statuses. This works for the third type of pre-defined Smart workbook called (3) **SmartTable**. This third template is a more generic version of the DealTool allowing you the option to insert worksheets that have automated headers but not limited to balance sheets or income statements.



Workbook

New	provides a selection of branded templates for creating new Smart workbooks
Properties	allows you to change the project details of Smart workbooks or insert firm branded styles into regular Excel workbooks.
Update	updates the index of a workbook or adds an index sheet if it does not exist
Index	takes you to the index worksheet, which has the table of contents for the entire workbook
Insert	
Sheet	inserts pre-formatted worksheets into a workbook. Available worksheet options vary depending on the Smart workbook you are using
Chart Wizard	creates branded Smart charts based on a selected range of data and opens up the wizard as a task pane with a variety of formatting choices
Text Box	allows you to add a textbox in your workbook, useful for adding large amounts of text
Note	allows you to add notes so you can keep track of issues and open items. Dropdown options include deleting notes, locking them in position and refreshing notes
Callout	allows you to draw callout boxes on your workbook
To PPT	provides options to insert charts or tables as a picture, shape or embedded object (single worksheet). For best results, insert tables as objects and charts as shapes
Symbols	presents various figures, special characters or shapes that can be inserted into individual cells
Smart Library	provides the ability to add various shapes or diagrams into your workbook

Format

Grid	toggles the grid on and off serving as a guide for sizing tables or charts before inserting into PowerPoint slides
Cell Styles	formats cells using pre-defined branded styles
Headers & Footers	adds headers and footers to a worksheet or the entire Workbook
Format for Printing	prepares sheets or workbooks for printing
Tools	
Total Subtotal	inserts pre-formatted sums of selected ranges or numbered cells
Functions	calculates DSO, DIO, DPO, & CAGR
Tools	provides a variety of commands for formatting cells, calculations and other custom functions

Report

Pack & Send	adds risk management language to your workbook and converts it to a password-protected PDF file that is auto attached to a draft email ready for client distribution
Other Reports	provides option for converting your workbook to a DataPack. Also has the option to generate a list of notes that exists in the workbook

Help

Provides guidance on how to use Smart for PowerPoint, Word and Excel, as well as fix corrupt Excel files and provide suggestions for improvement. In addition, the About Smart dialog allows you to:

Reset Smart	updates your Smart version to have the latest templates and other contents by synchronising with your territory-specific content database
--------------------	---

Excel – frequently used shortcut keys:

Excel 2007*

Smart 3.0 Shortcut key	Function	Native Excel 2007: Shortcut key	Function
Alt-z-s-i	Title	Ctrl-c	Copy
Alt-z-s-u	Subtitle 1 (underline)	Ctrl-v	Paste
Alt-z-s-n	Subtitle 1 (no underline)	Ctrl-p	Print
Alt-z-s-d	Normal (default number)	Alt-e-s-v	Paste Special – Values
Alt-z-s-g	General (default text)	Alt-e-s-v-i	Paste Special – Values – Divide
Alt-z-s-t	Total	Alt-e-s-v-m	Paste Special – Values – Multiply
Alt-z-s-s	Subtotal	Alt-e-s-f	Paste Special – Formulas
Alt-z-s-p	Percent	Alt-e-s-t	Paste Special – Formats
Alt-z-s-r	Source	Alt-i-r	Insert Rows
Alt-z-s-b	Bold (bold & coloured)	Alt-i-c	Insert Columns
Alt-z-s-h	Highlight (cell fill)	Alt-e-d	Delete
Alt-z-s-f	Forecast (cell fill)	Alt-e-m	Move or Copy Sheet
Alt-z-c	Insert callout	Alt-e-f	Find
		Alt-e-e	Replace
		Alt-d-g-g	Group (Rows/Columns)
		Alt-d-g-u	Ungroup (Rows/Columns)
		Alt-f-s	Save (File)
		Alt-f-o	Open (File)
		Alt-h-o-u-h	Unhide Sheets
		Alt-p-sp	Page Setup

* Shortcut keys in Excel 2007 may be previewed by clicking “Alt”. Clicking “Alt-z-s” brings up Cell Styles shortcuts.

Excel – creating a bubble chart

User guide

A bubble chart is used to present three parameters in a two dimensional scale. While the first two parameters are plotted on x and y axes, the third parameter is depicted by size of the bubble.

1. Arrange your data in the required format (in columns only):
Data must be set out as three series in columns, ordered from left to right: x-variable, y-variable and bubble size.
2. Note that the bubbles will be ordered in the chart as they are ordered in your source data.
To bring a bubble to the front you can move it to the bottom of your source data before plotting the chart.
3. Plot chart by highlighting source data as shown and clicking the Smart Chart Wizard:
Format to your preferences as usual, including adding name/bubble size labels through the Smart Chart Wizard.

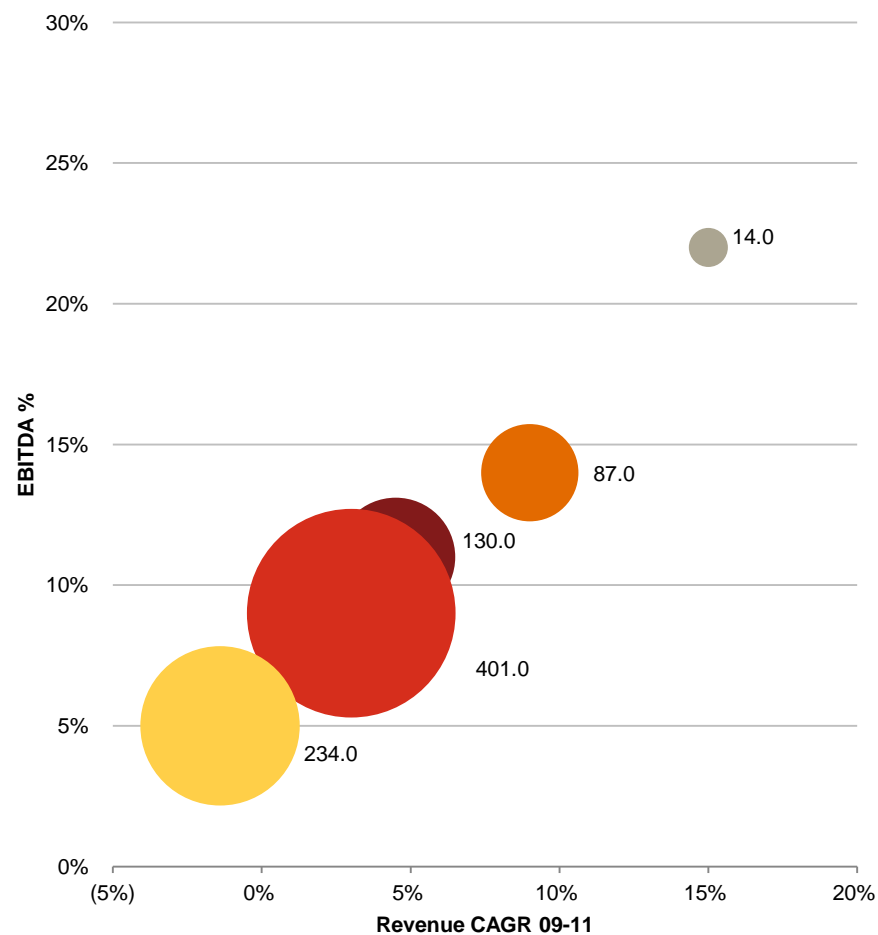
Data

	Revenue CAGR 09-11	EBITDA %	FY11 Revenue
A	0.045	0.11	130
B	0.030	0.09	401
C	(0.014)	0.05	234
D	0.090	0.14	87
E	0.150	0.22	14

Diagram illustrating the mapping of data columns to chart axes and bubble size:

- Revenue CAGR 09-11 (Column 2) is mapped to the x-axis.
- EBITDA % (Column 3) is mapped to the y-axis.
- FY11 Revenue (Column 4) is mapped to the bubble size.

Bubble chart



Excel – creating a merimekko chart

User guide

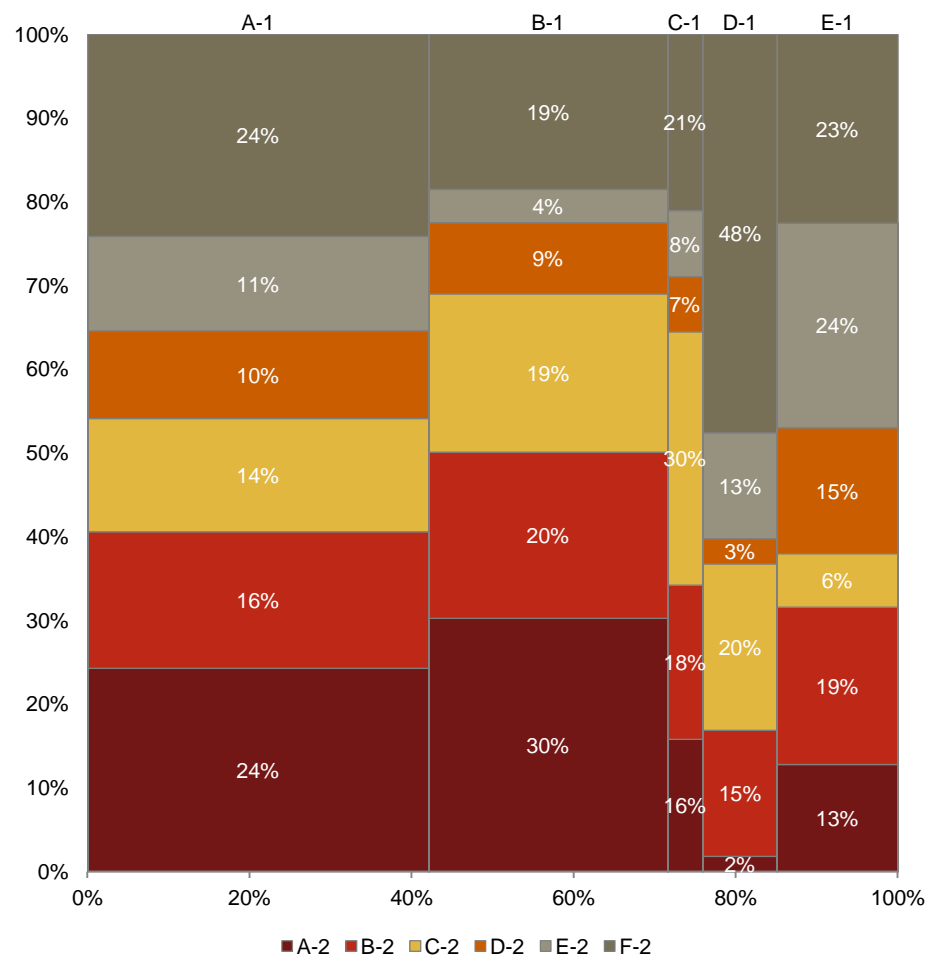
A merimekko chart is often used to depict market segments or maps. It converts numbers into percentages of total for each series across x-axis and y-axis.

1. Arrange your data in the required format (it will plot by columns only):
Data can be set out in columns – the chart will plot series from bottom to top (by columns).
2. Plot chart by highlighting source data as shown and clicking the Smart Chart Wizard:
Format to your preferences as usual. The chart will create a hidden data table on your sheet.

Data

Revenue (m)	A-2	B-2	C-2	D-2	E-2	F-2
A-1	183	123	102	79	85	182
B-1	160	105	100	45	21	98
C-1	12	14	23	5	6	16
D-1	3	25	33	5	21	79
E-1	34	50	17	40	65	60

Merimekko chart



Excel – creating a bridge chart

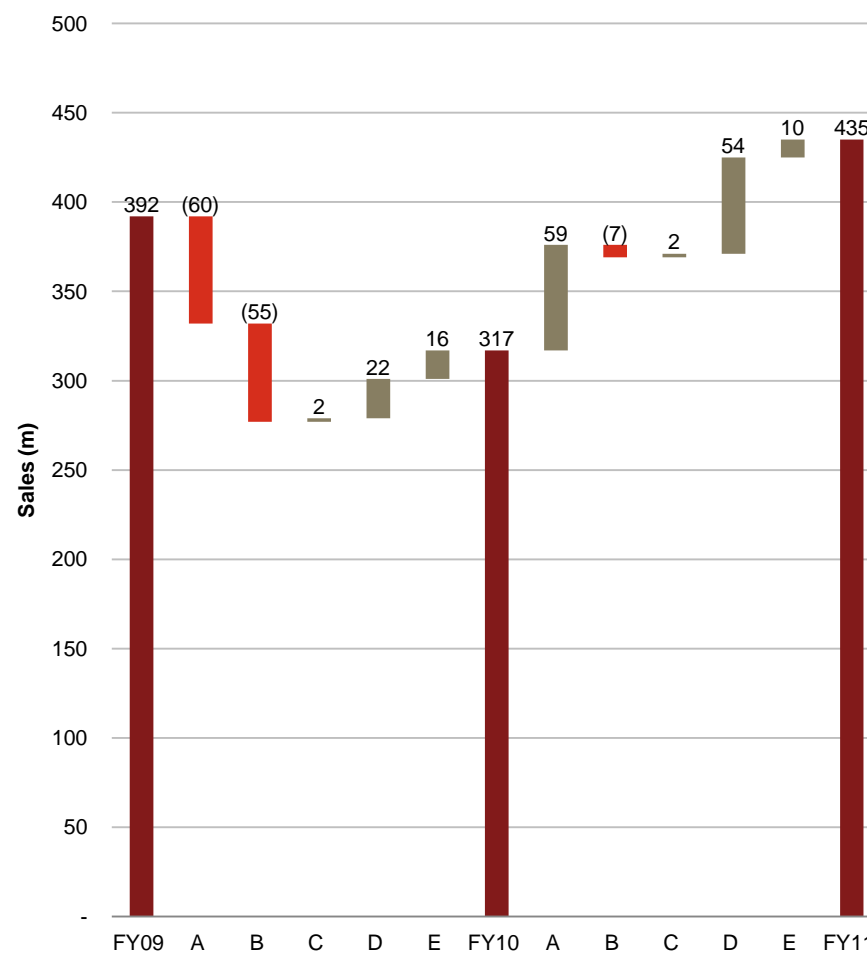
User guide

1. Arrange your data in the required format (in columns only):
Data can be set out in columns – after the start column, leave blanks against each category where you wish to plot a full bar.
2. Plot chart by highlighting source data as shown and clicking the Smart Chart Wizard:
Format to your preferences as usual. The chart will create a hidden data table on your sheet.

If you wish to add more source data you will need to delete and re-plot the chart.

Data				Required format	
Revenue (m)	FY09	FY10	FY11	(source data)	
A	183	123	182	FY09	392
B	160	105	98	A	(60)
C	12	14	16	B	(55)
D	3	25	79	C	2
E	34	50	60	D	22
				E	16
				FY10	
				A	59
				B	(7)
				C	2
				D	54
				E	10
				FY11	

Bridge chart



Excel – Unique Values – Range

Application and methodology:

The “Unique Values – Range” can be used, for instance, to create a unique list of accounts from a range of changing accounts listings from month to month. Another purpose could be unique mailing lists. This tool identifies all unique values in a selection and outputs those values on a newly created worksheet. The tool sorts the output alphabetically and formats as text. In case numbers are input (e.g. account nos.), the numbers will be sorted in ascending order.

How to use the Unique Values – Range

Select cells that you wish to include (they maybe on different tabs), then click “Unique Values – Range”. A new sheet is created with all values that were selected, sorted alphabetically in column B, and duplicate values removed.

Input

	A	B	C
1		Account	Value
2		A	100
3		B	200
4		C	300
5		D	400

Sheet1

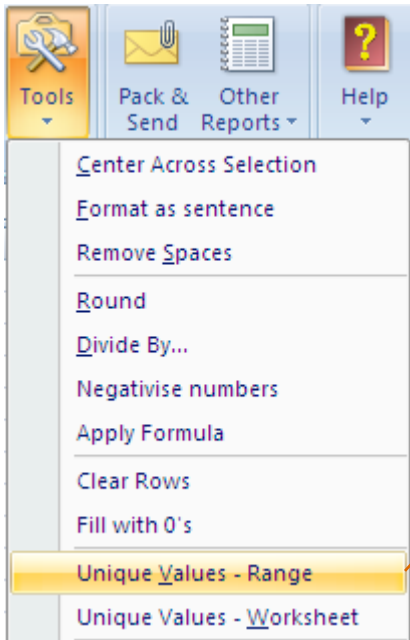
	A	B	C
1		Account	Value
2		A	600
3		B	500
4		C	400
5		D	300
6		E	200
7		F	100

Sheet2

	A	B	C
1		Account	Value
2		X	1,000
3		Y	2,000
4		Z	3,000

Sheet3

Tool selection



The screenshot shows the 'Tools' menu in Excel. The 'Unique Values - Range' option is highlighted in yellow. Other options visible include 'Center Across Selection', 'Format as sentence', 'Remove Spaces', 'Round', 'Divide By...', 'Negativise numbers', 'Apply Formula', 'Clear Rows', 'Fill with 0's', and 'Unique Values - Worksheet'.

Output

	A	B	C
1		Insert title here	
2		A	
3		B	
4		C	
5		D	
6		E	
7		F	
8		X	
9		Y	
10		Z	

If you are preparing a monthly analysis, you are now able to use this unique list as basis for a VLOOKUP function.

Excel – Unique Values – Worksheet

Background and Application:

Often times in the due diligence process, teams will receive monthly financial information, with each month on a different tab. The “Unique Values – Worksheet” command was designed to help users to quickly identify how lists of accounts change over a period of time. This subsequently enables users to easily create a complete list of accounts for all periods without reordering alphabetically, which would happen when using other Excel functions, such as Pivot Tables.

With the complete list of accounts, teams can apply a VLOOK-UP function to quickly compile a monthly analysis, consolidating all months on one tab.

How to use the Unique Values - Worksheet:

- Step 1:** Set your data in the same column in each sheet (column B in this example)
- Step 2:** Select Unique Values – Worksheet
- Step 3:** Select the worksheets and column to search (Jan, Feb, Mar worksheets and column B in this example)
- Step 4:** A new worksheet “Sheet” will be created with the following characteristics:
- column from a sheet with the longest string of data,
 - data in a column from other sheets (going from left to right) will be compared to the longest column, outlining new values which were not found in the longest column or previous tabs.
- In this example, the longest list was March, and the value that was not found on the March list was “- Fruit Punch”, found on the February list.

Input

	A	B	C
1		Jan	
2		Sales	
3		- Black Coffee	100
4		- Vanilla Latte	120
5		- Mint Mocha	90
6			
7		Cost of sales	
8		- Black Coffee	80
9		- Vanilla Latte	125
10		- Mint Mocha	80
11			
12		Profit	
13		- Black Coffee	20
14		- Vanilla Latte	(5)
15		- Mint Mocha	10

	A	B	C
1		Feb	
2		Sales	
3		- Black Coffee	155
4		- Vanilla Latte	140
5		- Mint Mocha	90
6		- Espresso	40
7		- Fruit Punch	30
8			
9		Cost of sales	
10		- Black Coffee	150
11		- Vanilla Latte	130
12		- Mint Mocha	85
13		- Espresso	30
14		- Fruit Punch	50
15			
16		Profit	
17		- Black Coffee	5
18		- Vanilla Latte	10
19		- Mint Mocha	5
20		- Espresso	10
21		- Fruit Punch	(20)

	A	B	C
1		Mar	
2		Sales	
3		- Black Coffee	140
4		- Vanilla Latte	135
5		- Mint Mocha	125
6		- Espresso	90
7		- Coffee Arabica	80
8		- Cappuccino	70
9			
10		Cost of sales	
11		- Black Coffee	135
12		- Vanilla Latte	100
13		- Mint Mocha	95
14		- Espresso	75
15		- Coffee Arabica	50
16		- Cappuccino	60
17			
18		Profit	
19		- Black Coffee	5
20		- Vanilla Latte	35
21		- Mint Mocha	30
22		- Espresso	15
23		- Coffee Arabica	30
24		- Cappuccino	10

Tool selection

Tools

- Pack & Send
- Other Reports
- Help
- Center Across Selection
- Format as sentence
- Remove Spaces
- Bound
- Divide By...
- Negativise numbers
- Apply Formula
- Clear Rows
- Fill with 0's
- Unique Values - Range
- Unique Values - Worksheet**

Unique Values - Worksheet

Select Column: ☒ A ☒ B ☐ C ☐ D ☐ E ☐ F

Select Worksheets: ☒ Select All ☐ Deselect All

☒ Jan
☒ Feb
☒ Mar

Create List Cancel

Output

	A	B	C	D
1		Insert title here		
2		Mar	Jan	Feb
3		Mar	Jan	Feb
4		Sales		- Fruit Punch
5		- Black Coffee		
6		- Vanilla Latte		
7		- Mint Mocha		
8		- Espresso		
9		- Coffee Arabica		
10		- Cappuccino		
11		Cost of sales		
12		- Black Coffee		
13		- Vanilla Latte		
14		- Mint Mocha		
15		- Espresso		
16		- Coffee Arabica		
17		- Cappuccino		
18				
19		Profit		
20		- Black Coffee		
21		- Vanilla Latte		
22		- Mint Mocha		
23		- Espresso		
24		- Coffee Arabica		
25		- Cappuccino		
26				