Spreadsheets

If Statements

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Task Overview

Objectives

Understand the use of absolute cell referencing.

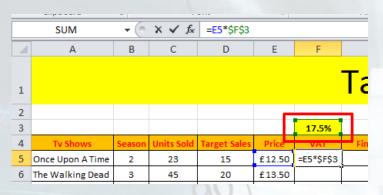Understand the use of simple functions (sum,max,min and average in a spreadsheet.

Understand the use of If statements including the logical, true and false statements.

Understand the need the need to present data in a graph format.

Outcomes	Time
Complete the If Statement worksheets.	

Absolute Cell Referencing

This cell has absolute cell referencing.

When you use **AutoFill** to **duplicate a formula** into the cells **below** then you must use **absolute cell referencing** if you want the cells to be **referencing** to **one particular cell**.

Absolute cell referencing will **lock** in a particular cell. To absolute cell reference you must insert a **dollar sign before Letter and number of the cell.**

All the **price cells** have been **multiplied** by the **percentage** to work out the tax.

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Functions

	A	B	C	D	E	F	G	H
1						Task 2 - T		
2								
3						17.5%		
4	Tv Shows	Season	Units Sold	Target Sales	Price	VAT	Final Price	Total Sum
5	Once Upon A Time	2	23	15	£12.50	£ 2.19	£ 14.69	£ 337.81
6	The Walking Dead	3	45	20	£13.50	£ 2.36	£ 15.86	£ 713.81
7	Lost	4	24	20	£10.50	£ 1.84	£ 12.34	£ 296.10
8	Heroes	2	24	25	£12.50	£ 2.19	£ 14.69	£ 352.50
9	The 100	1	22	25	£11.50	£ 2.01	£ 13.51	£ 297.28
10	Under the Dome	1	12	20	£10.50	£ 1.84	£ 12.34	£ 148.05
11	Lost	5	23	20	£ 9.55	£ 1.67	£ 11.22	£ 258.09
12							Total	£ 2,403.64
13							Highest	£ 713.81
14							Lowest	£ 148.05
15							Average	£ 343.38

Range

=SUM(H5:H11)

=Sum(Range) will add up all the numbers in the range

=MAX(H5:H11)

=Max(Range) will find the highest number in the range.

=MIN(H5:H11)

=Min(Range) will find the lowest number in the range.

=AVERAGE(H5:H11)

=average(Range) will find the average number in the range.

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If Statements

If the **units sold** is **more than or equal** to **the targets sales** than the **target has been met**.

4	Tv Shows	Season	Units Sold	Target Sales	Price	VAT	Final Price	Total Sum	on target	1) Apply Fc
5	Once Upon A Time	2	23	15	£12.50	£ 2.19	£ 14.69	£ 337.81	=IF(C5>=D5,"on target","off target")	2) Work ou
6	The Walking Dead	3	45	20	£13.50	£ 2.36	£ 15.86	£ 713.81		4) Work ou

1. Logical Test
Is units sold more than or equal to the target sales.

2. If the statement is true then the "true statement" will be printed in the cell.

3. If the statement is false then the "false statement" will be printed in the cell.
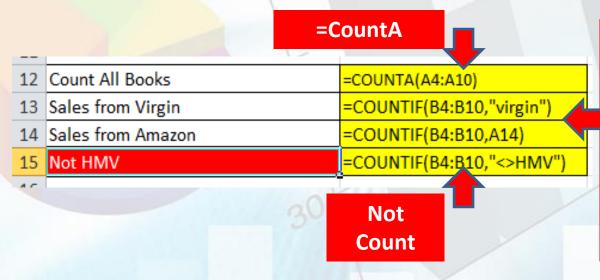
=IF(C5>=D5,"on target","off target")

1. Logical Test

2. True

3. False

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Extension: Counts

=Count(Range) - This will count a range of cells which only includes numbers.

=Count**A**(Range,**Criteria**) - This will count a range of cells which includes letters and numbers. **The A stands for alphanumeric.**

=Count**if**(Range,**Criteria**) - This will count a range of cells which includes a specific criteria.

 Not =Countif(Range,"**<>**Criteria") – This will count everything apart from the specific criteria.

=CountA

=CountIF(Range,Criteria)

12	Count All Books	=COUNTA(A4:A10)
13	Sales from Virgin	=COUNTIF(B4:B10,"virgin")
14	Sales from Amazon	=COUNTIF(B4:B10,A14)
15	Not HMV	=COUNTIF(B4:B10,"<>HMV")

When you reference to a criteria you can either write the criteria in speech marks or reference to a cell that contains the criteria.

Not Count

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Extension: Sumif

	Books	Shop	Price	Student Discount	Student Discount Value	Final Price inc discount
4	Diary of a Wimpy Kid:	Virgin	5.50	Yes	£ 0.55	£ 4.95
5	Harry Potter and the Sorcerer's Stone	Amazon	6.00	no	£ -	£ 6.00
6	The Heroes of Olympus	Virgin	4.50	Yes	£ 0.45	£ 4.05
7	The Hunger Games	Amazon	5.50	No	£ -	£ 5.50
8	The Maze Runner	HMV	6.50	Yes	£ 0.65	£ 5.85
9	The Book with No Pictures	Virgin	3.50	Yes	£ 0.35	£ 3.15
10	Mockingjay	Amazon	5.00	No	£ -	£ 5.00
11						
12	Count All Books	7			Total	
13	Sales from Virgin	3			Highest	
14	Sales from Amazon	0			Lowest	
15	Not HMV	6			Average	
16						
17	Sumif (Final Price)					
18	Sumup total Virgin Sales	=SUMIF(B4:B10,"virgin",F4:F10)				
19	Sumup total Amazon Sales					

Range: The criteria is **"virgin"**. Look at the **table** and **highlight** the range of cells which includes **"Virgin"**.

Criteria: You can either reference to a cell or write the criteria in quotation marks.

SumRange: This will sum up only the criteria values from the sum range.

Criteria

=SUMIF(**B4:B10**,"virgin",**F4:F10**)

Range   **Sum_Range**

A sumif will only sum (add) up a specific criteria (condition) from the sum_range.

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Plenary – Refer to the Lesson Objectives

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Plenary Task (Q&A)

Discuss the advantages of using absolute cell referencing and If Statements.
Discuss the levels pupils have achieved for this task.