Spreadsheets

If Statements Part 2

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Task Overview

Objectives

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

Understand how calculations can be used as True statements

Understand the use of nested if statements including more than one true statement.

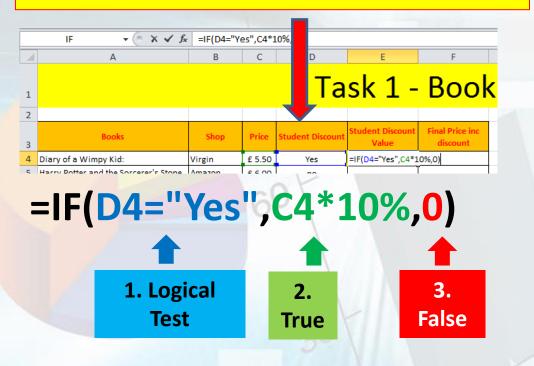**Extension:** Understand the use of count and sum if functions.

Outcomes | Time

Complete the If Statement Part 2 worksheets.

If Statements with Calculations

If student discount has been given ("**Yes**") then for the **true statement** you have to calculate **10% of Price**. This will be the value for the **student discount**. If the student discount does not contain "**Yes**" than the **false value (0)** will be shown.
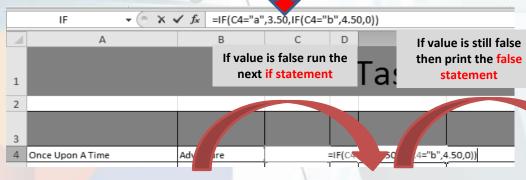
1. Logical Test
Does the Cell in D4 equal "Yes"

2. If the Logical Test is true then the calculation (10% of the price) will be shown.

3. If the statement is false then the false value (0) will be shown.

	IF	▼	⚪ ✕ ✓ *fx*	=IF(D4="Yes",C4*10%,		
▲	A	B	C	D	E	F
1					Task 1 - Book	
2						
3	Books	Shop	Price	Student Discount	Student Discount Value	Final Price inc discount
4	Diary of a Wimpy Kid:	Virgin	£ 5.50	Yes	=IF(D4="Yes",C4*10%,0)	
5	Harry Potter and the Sorcerer's Stone	Amazon	£ 6.00	no		

=IF(D4="Yes",C4*10%,0)

1. Logical Test	2. True	3. False

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Nested if Statements

A **nested if** will contain **more than one true statement**. In this example the delivery type will be either **A, B or Free.**

The Nested if will check the first logical Test. If the first test is false then it will check the next logical test. If both tests are false then the false value will be shown.

1. Logical Test 1
Does the Cell in C4 equal "A"

2. If the Logical Test 1 is true then 3.50 will be printed.

3. Logical Test 2
Does the Cell in C4 equal "B"

2. If the Logical Test 2 is true then 4.50 will be printed.

If both logical tests are false the false value (0) will be printed.

	IF		▼	⊗ ✕ ✓ *fx*	=IF(C4="a",3.50,IF(C4="b",4.50,0))

	A	B	C	D	
1					Tas
2					
3					
4	Once Upon A Time	Adventure		=IF(C4... .50 ...4="b",4.50,0))	

If value is false run the next **if statement**

If value is still false then print the **false statement**

=IF(**C4="a"** ,**3.50**,IF(**C4="b"** ,**4.50**,**0**))

1. Logical Test   **2. True**   **1. Logical Test**   **2. True**   **3. False**
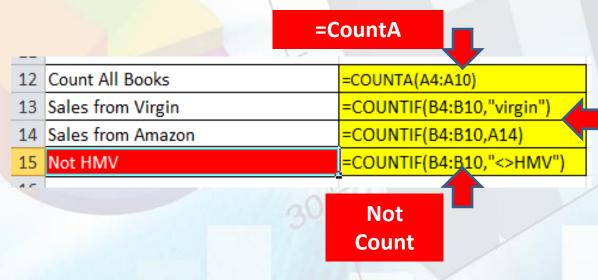
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Extension: Counts

=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
Diary of a Wimpy Kid:	Virgin	5.50	Yes	£ 0.55	£ 4.95
Harry Potter and the Sorcerer's Stone	Amazon	6.00	no	£ -	£ 6.00
The Heroes of Olympus	Virgin	4.50	Yes	£ 0.45	£ 4.05
The Hunger Games	Amazon	5.50	No	£ -	£ 5.50
The Maze Runner	HMV	6.50	Yes	£ 0.65	£ 5.85
The Book with No Pictures	Virgin	3.50	Yes	£ 0.35	£ 3.15
Mockingjay	Amazon	5.00	No	£ -	£ 5.00
Count All Books	7			Total	
Sales from Virgin	3			Highest	
Sales from Amazon	0			Lowest	
Not HMV	6			Average	
Sumif (Final Price)					
Sumup total Virgin Sales	=SUMIF(B4:B10,"virgin",F4:F10)				
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

Objectives

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

Understand how calculations can be used as True statements

Understand the use of nested if statements including more than one true statement.

Extension: Understand the use of count and sum if functions.

Plenary Task (Q&A)

Discuss the levels pupils have achieved for this task.

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