

Index and Match

In today's article the focus are the lookup functions Index and Match, and how they can be used together. Attached to the Article you will find a PDF version for printout. There is also an Excel file that have one sheet containing a dataset (booklist with columns author, title and ISBN) and a task part containing 4 columns; Task, Search Criteria, Your Test and Answer.

You can test yourself by entering the code described further down in this article into column C, "Your Test" in the attached Excel sheet. In Column D, answer you will see what result you're supposed to get.

Index and Match, what are they and what do they do:

- **MATCH** – This function is used to find the position (row number) of a given search criteria in the dataset we want to get the value from. The purpose of Match is by that to find the row/column coordinate for the value the user is looking for.
- **INDEX** – Returns the contents in a specific row/column intersection based on a position given in its criteria's (Column and row number). The purpose of Index is by that to return contents of a field elsewhere in the workbook to the field where the user wants it.

When combining these two functions is Match used to find the row number for a certain search criteria and Index to return a value from the same row but different column.

Please use attached Excel sheet for practical training on these functions, snapshot of it at the bottom of the article for field references.

How to use Match

1. Start by placing the marker in C13. Type in "=Match("
2. Select field B13 either by use of the mouse
3. Enter a semicolon ";"
4. Select the data range to look in, "B1:B10" by use of the mouse
5. Enter a semicolon ";"
6. Type 0 for "Exact Match"
7. End code with a ")" and press enter
8. The shown result in C13 should be "3"

B	C
Author	ISBN
Harper Lee	978-0060935467
Jane Austen	978-0141439518
Anne Frank	978-0553296983
George Orwell	978-0451524935
J.K. Rowling	978-0545007727
J.R.R. Tolkien	978-0619633011
F. Scott Fitzgerald	978-0000000000
E.B. White	978-0000000000
Louisa May Alcott	978-0147514011

Search Criteria	Your Test	Answer
Jane Austen	=MATCH(B13;B1:B10;)	3

How to use Index

1. Start by placing the marker in C14. Type in "=Index("
2. Select the data range to look in, "A1:A10" by using the arrow keys to move to A1, press and hold shift and then move to A10 with the arrow keys.
3. Enter a semicolon ";"
4. Select field B14 by using the arrow keys to move to B14
5. End code with a ")" and press enter
6. The shown result in C14 should be "Harry Potter and the Sorcerer's Stone"

A	B
Book Title	Author
To Kill a Mockingbird	Harper Lee
Pride and Prejudice	Jane Austen
The Diary of Anne Frank	Anne Frank
1984	George Orwell
Harry Potter and the Sorcerer's Stone	J.K. Rowling
The History of the Lord of the Rings	J.R.R. Tolkien
The Great Gatsby	F. Scott Fitzgerald
Charlotte's Web	E.B. White
Little Women (Puffin in Bloom)	Louisa May Alcott

Task; Use the	Search Criteria	Answer
- Match function to find the row number for this Author:	Jane Austen	
- Index function to present the Book Title for this row:		6
- combined function Match and Index to	The Great Gatsby	

Tip: Compare your code with the code under Answer if Excel gives an error to find any mistakes.

How to use Index and Match together

1. Start by placing the marker in C15.
Type in “=Index(“
2. Select the data range to look in,
“C1:C10”
3. Type in a semicolon “;” followed by
“Match(“
4. Select field B15 or write B15.
5. Enter a semicolon “;”
6. Select field “A1:A10”
7. Enter a semicolon “;” and “0” for exact
match followed by “)”).
8. Press Enter, given result in C15 should
then be 978-0743273565

	A	B	C
1	Book Title	Author	ISBN
2	To Kill a Mockingbird	Harper Lee	978-0060935467
3	Pride and Prejudice	Jane Austen	978-0141439518
4	The Diary of Anne Frank	Anne Frank	978-0553296983
5	1984	George Orwell	978-0451524935
6	Harry Potter and the Sorcerer's Stone	J.K. Rowling	978-0545790352
7	The History of the Lord of the Rings	J.R.R. Tolkien	978-0618083558
8	The Great Gatsby	F. Scott Fitzgerald	978-0743273565
9	Charlotte's Web	E.B. White	978-0061124952
10	Little Women (Puffin in Bloom)	Louisa May Alcott	978-0147514011
11			
12	Task; Use the	Search Criteria	Your Test
13	- Match function to find the row number for this Author:	Jane Austen	3
14	- Index function to present the Book Title for this row:	6	Harry Potter and the Sorcerer's Stone
15	- combined function Match and Index to find ISBN number for this Book Title:	The Great Gatsby	978-0743273565
16	- combined function Match and Index to find book title for this Author:	J.R.R. Tolkien	The History of the Lord of the Rings
17	- combined function Match and Index to find Author for this ISBN:	978-0147514011	Louisa May Alcott
18	- combined function Match and Index to find Author for this Book Title:	Charlotte's Web	E.B. White
19	- combined function Match and Index to find ISBN for this Author:	Harper Lee	978-0060935467
20	- combined function Match and Index to find Book Title for this ISBN:	978-0451524935	1984

Row 16 to 20 in the attached Excel spreadsheet gives more exercises with Index and Match used together. The only difference from above sample is the search criteria, where we search and what to return. Quite simple, so please feel free to play around with it.

	A	B	C	D
1	Book Title	Author	ISBN	
2	To Kill a Mockingbird	Harper Lee	978-0060935467	
3	Pride and Prejudice	Jane Austen	978-0141439518	
4	The Diary of Anne Frank	Anne Frank	978-0553296983	
5	1984	George Orwell	978-0451524935	
6	Harry Potter and the Sorcerer's Stone	J.K. Rowling	978-0545790352	
7	The History of the Lord of the Rings	J.R.R. Tolkien	978-0618083558	
8	The Great Gatsby	F. Scott Fitzgerald	978-0743273565	
9	Charlotte's Web	E.B. White	978-0061124952	
10	Little Women (Puffin in Bloom)	Louisa May Alcott	978-0147514011	
11				
12	Task; Use the	Search Criteria	Your Test	Answer
13	- Match function to find the row number for this Author:	Jane Austen		3
14	- Index function to present the Book Title for this row:	6		Harry Potter and the Sorcerer's Stone
15	- combined function Match and Index to find ISBN number for this Book Title:	The Great Gatsby		978-0743273565
16	- combined function Match and Index to find book title for this Author:	J.R.R. Tolkien		The History of the Lord of the Rings
17	- combined function Match and Index to find Author for this ISBN:	978-0147514011		Louisa May Alcott
18	- combined function Match and Index to find Author for this Book Title:	Charlotte's Web		E.B. White
19	- combined function Match and Index to find ISBN for this Author:	Harper Lee		978-0060935467
20	- combined function Match and Index to find Book Title for this ISBN:	978-0451524935		1984