**XMATCH in Excel**

XMATCH is a lookup function in Excel used to find the **relative position** of an item in a list or range. It's more powerful than the older MATCH function and supports both vertical and horizontal lookups, reverse search, and wildcard matching.

**Syntax of XMATCH**

XMATCH(lookup\_value, lookup\_array, [match\_mode], [search\_mode])

**Arguments:**

| **Argument** | **Description** |
| --- | --- |
| lookup\_value | The value to search for |
| lookup\_array | The array or range to search |
| match\_mode *(optional)* | 0 = exact match (default) -1 = exact match or next smaller 1 = exact match or next larger 2 = wildcard match |
| search\_mode *(optional)* | 1 = search first to last (default) -1 = search last to first 2 = binary search ascending -2 = binary search descending |

**Key Benefits Over MATCH**

* Works **left-to-right or right-to-left**
* Supports **wildcards** (\*, ?)
* Allows **reverse search**
* Returns **#N/A** if no match is found, just like MATCH

**Sample Data Table for Practice Questions**

Use this table in **Sheet1** or paste into Excel to try the questions:

| **A** | **B** | **C** | **D** |
| --- | --- | --- | --- |
| ID | Name | Score | Subject |
| 101 | Rajeev | 85 | Math |
| 102 | Priya | 90 | English |
| 103 | Akash | 75 | Science |
| 104 | Neha | 95 | Math |
| 105 | Anjali | 80 | English |
| 106 | Vikram | 60 | Science |
| 107 | Pooja | 88 | Math |

**Practice Questions Using XMATCH**

1. Find the position of “Rajeev” in the Name column.
2. Find the position of score 95.
3. Find the position of ID 106.
4. Find the position of the first “Math” subject.
5. Find the position of “Neha” searching bottom to top.
6. Find the position of the name starting with “P\*”.
7. Find the position of a score just greater than or equal to 82.
8. Find the position of a score just less than or equal to 88.
9. Find the position of the second occurrence of “Math”.
10. Find the position of the last occurrence of “English”.
11. Find the position of ID 103 searching from last to first.
12. Find the position of the name that matches “A*a*”.
13. Find the position of “Science” using wildcard “S??????”.
14. Find the position of the lowest score.
15. Find the position of the highest score.
16. Find the position of name "Anjali" using wildcard match.
17. Find the position of subject "English" from bottom to top.
18. Find the position of the score 70 (not in list).
19. Find the position of name “Pooja” searching from last to first.
20. Find the position of ID greater than or equal to 105.

**Solutions for Practice Questions**

1. =XMATCH("Rajeev", B2:B8) → **1**
2. =XMATCH(95, C2:C8) → **4**
3. =XMATCH(106, A2:A8) → **6**
4. =XMATCH("Math", D2:D8) → **1**
5. =XMATCH("Neha", B2:B8,, -1) → **4**
6. =XMATCH("P\*", B2:B8, 2) → **2**
7. =XMATCH(82, C2:C8, 1) → **5** (Next greater or equal → 85)
8. =XMATCH(88, C2:C8, -1) → **1** (Just less than or equal)
9. =XMATCH("Math", D3:D8) + 1 → **7**
10. =XMATCH("English", D2:D8,, -1) → **5**
11. =XMATCH(103, A2:A8,, -1) → **3**
12. =XMATCH("A\*a\*", B2:B8, 2) → **3**
13. =XMATCH("S??????", D2:D8, 2) → **3**
14. =XMATCH(MIN(C2:C8), C2:C8) → **6** (Score 60)
15. =XMATCH(MAX(C2:C8), C2:C8) → **4** (Score 95)
16. =XMATCH("An\*", B2:B8, 2) → **5**
17. =XMATCH("English", D2:D8,, -1) → **5**
18. =XMATCH(70, C2:C8) → **#N/A**
19. =XMATCH("Pooja", B2:B8,, -1) → **7**
20. =XMATCH(105, A2:A8, 1) → **5**

**Question:**

**Find the position of “Science” using the wildcard "S??????" in the Subject column D2:D8.**

**Explanation:**

**Data in Column D (Subjects):**

| **Row** | **Cell** | **Value** |
| --- | --- | --- |
| 2 | D2 | Math |
| 3 | D3 | English |
| 4 | D4 | Science |
| 5 | D5 | Math |
| 6 | D6 | English |
| 7 | D7 | Science |
| 8 | D8 | Math |

**Formula Used:**

=XMATCH("S??????", D2:D8, 2)

**What is a Wildcard?**

Wildcards are **special characters** used in Excel to match **text patterns**.

**Common Wildcards:**

| **Wildcard** | **Meaning** |
| --- | --- |
| \* | Matches **any number** of characters (even 0) |
| ? | Matches **exactly one** character |

**So, What Does "S??????" Mean?**

* Starts with S
* Followed by **exactly 6 characters**
* So "S??????" matches any word that is **7 letters long**, starting with **S**

**Check if any value in D2:D8 matches "S??????":**

* **D2: Math** → 4 letters, doesn't start with S
* **D3: English** → 7 letters, but starts with E
* **D4: Science** → 7 letters, starts with S → **Match Found!**
* **D5 to D8** → Don't match first occurrence

**XMATCH Returns:**

* XMATCH searches from **top to bottom** (by default)
* It finds "Science" in **D4**, which is the **3rd item** in the range D2:D8
* So the result is: **3**

**Final Answer:**

=XMATCH("S??????", D2:D8, 2) → 3

Because "Science" is the 3rd item in the range D2:D8 that matches the wildcard "S??????".