



# Get started with Microsoft 365 Copilot in Excel

Practical examples and how-tos

Sep 2024

© Copyright Microsoft Corporation. All rights reserved.



# Formulas: Writing, explaining, and asking questions

Create a column that shows the revenue in USD.  
Look up the exchange rates in the exchange rate to USD column.

Looking at A1:F51, here's 1 formula column to review and insert in Column G:

## Revenue in USD

Converts the revenue from various currencies to USD by multiplying the revenue by the corresponding exchange rate found in the currency exchange rates table (Table1) based on the currency code.

fx

```
=[@Revenue] * XLOOKUP([@Currency code],  
Table1[Currency Code], Table1[Exchange Rate to  
USD])
```

Show explanation ▾

	G
1	Revenue in USD
2	8,304,442.00
3	11,190,935.00
4	13,837,195.00
5	9,560,385.00
...	...

AI-generated content may be incorrect



How can I write a formula to forecast revenue over time?

To forecast revenue over time, you can use the FORECAST function or the FORECAST.ETS function in Excel. Here's a high-level approach:

1. **Collect Historical Data:** Ensure you have historical revenue data over time.
2. **Choose a Forecasting Method:** Use either linear forecasting (FORECAST) or exponential smoothing (FORECAST.ETS).

## Using FORECAST for Linear Forecasting

If you have a linear trend in your data, you can use the FORECAST function.

fx

```
=FORECAST(new_date, Table7[Revenue], Table7[Date])
```

## Using FORECAST.ETS for Exponential Smoothing

If your data has seasonality or a non-linear trend, use the FORECAST.ETS function.

fx

```
=FORECAST.ETS(new_date, Table7[Revenue],  
Table7[Date])
```

Replace new\_date with the date for which you want to forecast the revenue.

AI-generated content may be incorrect



What does this formula do: =[@[Engaged Users]]/[@[Total Users Targeted]]

This formula calculates the engagement rate for each row in a table.

- It divides the value in the "Engaged Users" column by the value in the "Total Users Targeted" column for the current row.
- The result is the proportion of engaged users out of the total users targeted.

AI-generated content may be incorrect



How would I write a formula to split a column with comma separated values into separate columns?

You can use the TEXTSPLIT function to split a column with comma-separated values into separate columns. Here's an example:

Assume you have comma-separated values in cell A1, like "Apple, Banana, Cherry".

fx

```
=TEXTSPLIT(A1, ",", "")
```

This formula will split the values in cell A1 into separate columns. If you drag this formula down, it will apply to other cells in column A as well.

AI-generated content may be incorrect



# Analyze and visualize your data

Summarize the reviews - what are the top 3 opportunities for improvement?

Here's a summary of column "Customer reviews":

- **Positive Feedback on Charger Performance:** Many users praised the charger for its reliability, efficiency, and quick charging times. It has been a valuable addition to various fleets, including rental cars, delivery vans, and mobile repair vans. Users appreciate its ease of use and the positive impact on their business operations.
- **Mixed Reviews on Customer Support:** While some users reported excellent customer support, others experienced poor service. Issues included unresponsive support teams and inadequate assistance with technical problems. This inconsistency in customer support has been a significant concern for some users.
- **Installation Challenges:** Several users mentioned difficulties with the installation process. Some had to call in technicians for assistance, while others found the process time-consuming and complicated. These challenges have led to frustration and additional costs for some users.
- **Opportunities for Improvement:** 1. Enhance Customer Support: Address the inconsistency in customer support by providing timely and effective assistance to all users. 2. Simplify Installation Process: Make the installation process more user-friendly and provide clear instructions to reduce the need for technical assistance. 3. Improve Charger Reliability: Address issues related to the charger stopping randomly, overheating, and slow charging times to ensure a more consistent and reliable performance.

Copy

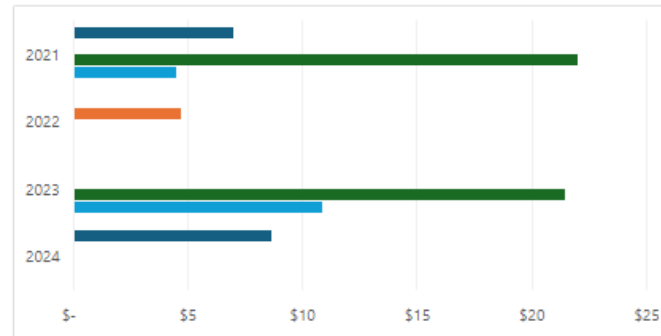
AI-generated content may be incorrect



Create a chart showing revenue by quarter and year

I analyzed data in A2:N14, and here's what I found:

Sum of Revenue (Thousands)



+ Add to a new sheet

AI-generated content may be incorrect



Here's a PivotChart based on your prompt. The revenue by quarter and year is as follows:

- 2021: Q1: \$6,980, Q3: \$22,018, Q4: \$4,540
- 2022: Q2: \$4,732
- 2023: Q3: \$21,507, Q4: \$10,857
- 2024: Q1: \$8,703

See the PivotChart above for more details.

Copy

AI-generated content may be incorrect



Add coloring to show each campaign type in a different color

OK! Looking at A1:K13, here are 3 conditional formatting rules to review and apply:

- **Text contains "Brand marketing":** Apply the following to cells in the column "Campaign Type"
  - Fill color: green
  - Font color: black
- **Text contains "Digital marketing":** Apply the following to cells in the column "Campaign Type"
  - Fill color: red
  - Font color: black
- **Text contains "Targeted - Group 2":** Apply the following to cells in the column "Campaign Type"
  - Fill color: blue
  - Font color: black

AaBbCc

AaBbCc

AaBbCc

✓ Apply

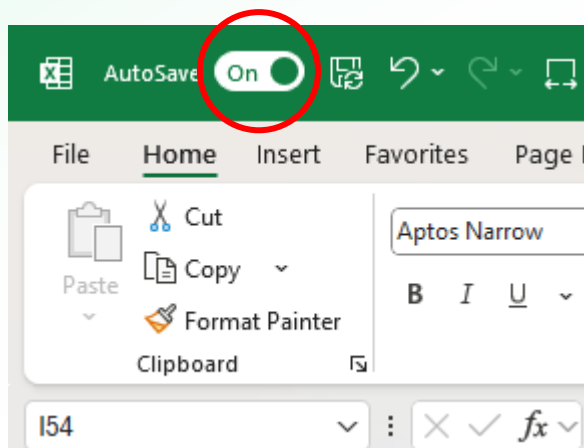
AI-generated content may be incorrect



# Getting started

## Autosave on

The file must be saved to OneDrive or SharePoint, with Autosave turned on.



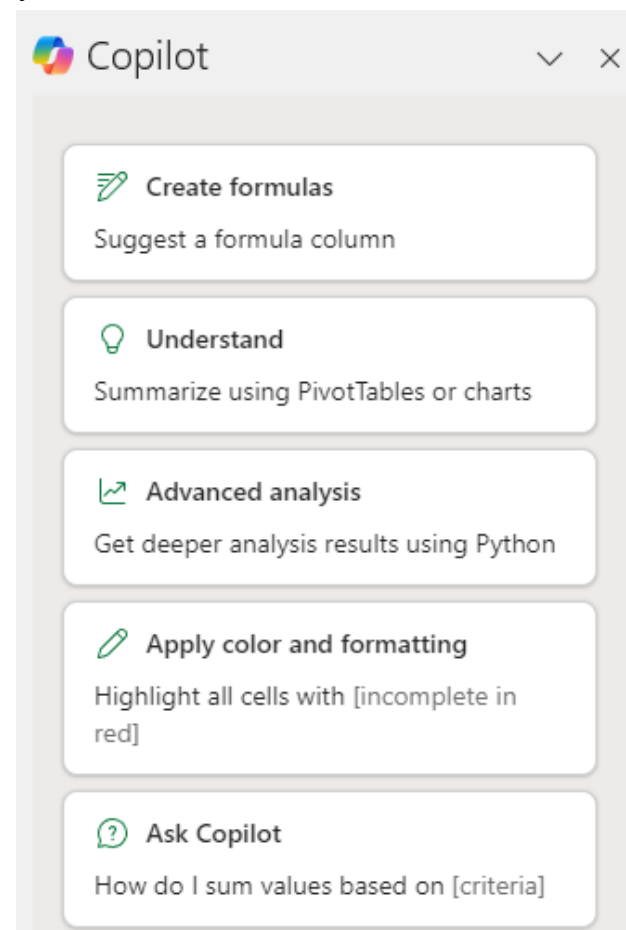
## “Table-less” Copilot

Copilot works with data that’s either in an Excel Table (Insert | Table) format, or in a “Table-Like Range” with column headers.

	A	B	C	D
1	<b>Employee ID</b>	<b>Email Address</b>	<b>First name</b>	<b>Last name</b>
2	7192	Juan.Tepaz@contoso.com	Juan	Tepaz
3	4840	Chetana.Hegde@contoso.com	Chetana	Hegde
4	1564	Swarnika.Soni@contoso.com	Swarnika	Soni
5	6619	Carmen.Vella@contoso.com	Carmen	Vella
6	7463	Akhilesh.Khare@contoso.com	Akhilesh	Khare
7	2734	Sigríður.Einarsdóttir@contoso.com	Sigríður	Einarsdóttir
8	8476	Rohini.Vasav@contoso.com	Rohini	Vasav
9	4987	Neha.Benjaree@contoso.com	Neha	Benjaree
10	6307	Jahidi.Juma@contoso.com	Jahidi	Juma
11	6356	Sonu.Jain@contoso.com	Sonu	Jain
12	1527	Sanjay.Puranik@contoso.com	Sanjay	Puranik
13	6161	Shweta.Chourasia@contoso.com	Shweta	Chourasia

## Open the chat pane

Click on the Copilot button on the ribbon and try one of the starting prompts or write your own.



# Tip: Use multi-turn

1. Use multi-turn to add clarification or request changes.
2. If you don't get what you want the first time, try saying "actually can you do XYZ instead" – that helps the model learn what you want.
3. Note that previous prompts/responses have informed Copilot's latest response – create a new chat thread to start fresh.

How many sales were there in King, Snohomish and Benton counties?

I analyzed data in A1:F61, and here's what I found:

**'Sales' by 'County' for 'County' 'King' or 'Snohomish' or 'Benton'**

County	Sum of Sales
King	7063
Benton	551
Snohomish	353
<b>Grand Total</b>	<b>7967</b>

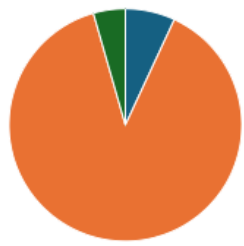
AI-generated content may be incorrect

The total sales in King, Snohomish, and Benton counties are 7063, 353, and 551 respectively. See the PivotTable above this message for more details.

AI-generated content may be incorrect

Can you show that as a pie chart?

I analyzed data in A1:F61, and here's what I found:



+ Add to a new sheet

AI-generated content may be incorrect

Copilot

Create formulas  
Suggest a formula column

Understand  
Summarize using PivotTables or charts

Apply color and formatting  
Highlight all cells with [incomplete in red]

Ask Copilot  
How do I sum values based on [criteria]

Chat history

Copilot

Copilot Chats

+ New chat

Split the country out from the 09/10/2024

Summarize the reviews - what a 09/10/2024

How would I write a formula to 09/10/2024

Highlight reviews that use dif 09/09/2024

# Tip: Ask “why” and “how” questions

1. Try asking Copilot *why* something isn't working or *how* to do the task in Excel, instead of asking it to do it for you.

2. If Copilot doesn't seem to understand what you want, try rephrasing your prompt with different words.

Why isn't the Date column sorting to show dates in the right order?

The issue might be due to the date format in the "Date of transaction" column. Ensure that the dates are recognized as date values by Excel. Here are the steps to check and correct this:

- 1. Select the Date Column:**
    - Click on the header of the "Date of transaction" column to select the entire column.
  - 2. Check the Format:**
    - Go to the "Home" tab on the ribbon.
    - In the "Number" group, check the format dropdown. It should be set to "Date."
  - 3. Convert Text to Date (if necessary):**
    - If the dates are not recognized correctly, you can use the DATEVALUE function to convert them.
    - Insert a new column next to the "Date of transaction" column.
    - Use the following formula to convert the text to date values:
- ```
fx  
=DATEVALUE([@[Date of transaction]])
```
- Copy the formula down the entire column.
  - Copy the new column and paste it as values over the original "Date of transaction" column.
  - Delete the temporary column.
- 4. Sort the Column:**
    - Select the "Date of transaction" column again.
    - Go to the "Data" tab on the ribbon.
    - Click on "Sort Oldest to Newest" or "Sort Newest to Oldest."

This should ensure that the dates are sorted correctly.

AI-generated content may be incorrect



How would I write a formula to bring in the revenue in USD from the Revenue worksheet?

To bring in the revenue in USD from the "Revenue" worksheet, you can use the VLOOKUP function. Assuming the "Revenue" worksheet has columns "Currency code" and "Revenue in USD", you can use the following formula:

```
fx  
=VLOOKUP([@[Currency code]], Revenue!A:B,  
2, FALSE)
```

This formula looks up the "Currency code" in the "Revenue" worksheet and returns the corresponding "Revenue in USD". Make sure to adjust the column references if they are different in your "Revenue" worksheet.

AI-generated content may be incorrect



Please use the thumbs up and down to let us know your experience!

The Excel team spends a *lot* of time reviewing these – and include a screenshot if possible, that context is very helpful.

# Working with text



# Summarize a column of text

- **Source:** Any dataset with a text-heavy column, such as survey verbatims.
- **Prompt 1:** Summarize <column> to show the top 3 opportunities for improvement.

|    | A             | B              | C                                                                                                                                |
|----|---------------|----------------|----------------------------------------------------------------------------------------------------------------------------------|
| 1  | Survey date ▾ | Department ▾   | Verbatims/comments from HR onboarding survey                                                                                     |
| 2  | 08/07/2024    | Marketing      | The onboarding process was smooth and well-organized. I felt like I was part of the team from day one.                           |
| 3  | 08/10/2024    | Sales          | I felt welcomed and supported by my new team. Everyone was so friendly and helpful.                                              |
| 4  | 08/16/2024    | Legal          | The training sessions were informative and helpful. I learned a lot about the company and my role.                               |
| 5  | 08/08/2024    | Marketing      | I appreciate the company's commitment to diversity and inclusion. It's great to see such a diverse workforce.                    |
| 6  | 08/08/2024    | Engineering    | The HR team was very responsive to my questions and concerns. They made the transition to the new company seamless.              |
| 7  | 08/07/2024    | Marketing      | I am excited about the opportunities for growth and development here. I can't wait to see what the future holds.                 |
| 8  | 08/14/2024    | Legal          | The company culture is positive and collaborative. I feel like I can really make a difference here.                              |
| 9  | 08/10/2024    | Legal          | I felt well-prepared for my role after the orientation. The onboarding materials were clear and easy to understand.              |
| 10 | 08/12/2024    | Legal          | The benefits package is comprehensive and competitive. I appreciate the emphasis on work-life balance.                           |
| 11 | 08/17/2024    | Sales          | I am impressed with the company's commitment to sustainability. It's great to see a company that cares about the environment.    |
| 12 | 08/14/2024    | Marketing      | The work environment is friendly and professional. I feel like I can really thrive here.                                         |
| 13 | 08/10/2024    | Support        | I appreciate the flexibility in work hours and remote work options. It's great to have that kind of flexibility.                 |
| 14 | 08/16/2024    | Engineering    | The company's mission and values align with my own. I feel like I am part of something bigger.                                   |
| 15 | 08/12/2024    | Marketing      | I felt valued and respected from day one. The team-building activities helped me get to know my colleagues.                      |
| 16 | 08/11/2024    | Support        | The onboarding materials were clear and easy to understand. I felt well-prepared for my first day on the job.                    |
| 17 | 08/12/2024    | Administration | I am looking forward to contributing to the company's success. I feel like I can really make a difference here.                  |
| 18 | 08/11/2024    | Support        | The HR team made the transition to the new company seamless. They were very helpful in answering my benefits questions.          |
| 19 | 08/15/2024    | Sales          | I appreciate the emphasis on work-life balance. It's great to have that kind of flexibility.                                     |
| 20 | 08/16/2024    | Administration | The company's technology and tools are up-to-date and efficient. I feel like I can really thrive here.                           |
| 21 | 08/07/2024    | Support        | I felt well-informed about the company's policies and procedures. The communication channels are open and transparent.           |
| 22 | 08/11/2024    | Engineering    | The team-building activities helped me get to know my colleagues. I feel like I am part of a great team.                         |
| 23 | 08/17/2024    | Marketing      | I am excited about the company's future and my role in it. I can't wait to see what the future holds.                            |
| 24 | 08/09/2024    | Administration | The HR team was very helpful in answering my benefits questions. They made the transition to the new company seamless.           |
| 25 | 08/17/2024    | Legal          | I felt supported during the onboarding process. The training sessions were informative and helpful.                              |
| 26 | 08/13/2024    | Administration | The company's communication channels are open and transparent. I feel well-informed about the company's policies and procedures. |
| 27 | 08/15/2024    | Support        | I appreciate the opportunities for professional development. I feel like I can really grow here.                                 |

Summarize the verbatims to show the top 3 opportunities for improvement

Here's a summary of column 'Verbatims/comments from HR onboarding survey':

- **Clear and Relevant Onboarding Materials:** Several comments highlighted the need for updated and role-specific onboarding materials. Outdated or generic information left new employees feeling lost and unsupported.
- **Structured and Well-Paced Onboarding Process:** Feedback indicated that the onboarding process was often disorganized, rushed, or too packed. A more structured and manageable onboarding schedule would help new employees absorb information better.
- **Comprehensive Information on Company Policies and Procedures:** Many new employees felt they did not receive enough information about the company's policies, procedures, and future plans. Providing a comprehensive overview would help them feel more informed and prepared.

Copy

AI-generated content may be incorrect





# Extract <labels> from a text column into a new column

- **Source:** Any dataset with a column that contains text you want to extract to new columns.
- **Prompt:** Add a column that extracts the text between the first set of brackets in <column>.

|    | A                                                                                       | B                     |
|----|-----------------------------------------------------------------------------------------|-----------------------|
| 1  | Science class list                                                                      | Extracted Text        |
| 2  | 1. [Physics] [Friday] Quantum Mechanics and the Fabric of Space-Time                    | Physics               |
| 3  | 2. [Biology] [Wednesday] Evolutionary Dynamics and Genetic Diversity                    | Biology               |
| 4  | 3. [Chemistry] [Wednesday] The Periodic Table: Elements and Their Interactions          | Chemistry             |
| 5  | 4. [Environmental Science] [Wednesday] Conservation Biology and Sustainable Development | Environmental Science |
| 6  | 5. [Astronomy] [Friday] Stars, Galaxies, and the Structure of the Universe              | Astronomy             |
| 7  | 6. [Geology] [Thursday] Plate Tectonics and the Earth's Interior                        | Geology               |
| 8  | 7. [Psychology] [Wednesday] The Human Mind: An Introduction to Neuropsychology          | Psychology            |
| 9  | 8. [Mathematics] [Monday] Differential Equations in Natural Sciences                    | Mathematics           |
| 10 | 9. [Computer Science] [Monday] Data Structures in Scientific Computing                  | Computer Science      |
| 11 | 10. [Biochemistry] [Friday] Metabolic Pathways and Cellular Energy                      | Biochemistry          |
| 12 | 11. [Physics] [Monday] Classical Mechanics and Relativity                               | Physics               |
| 13 | 12. [Biology] [Thursday] Microbial Worlds: An Exploration of Microorganisms             | Biology               |
| 14 | 13. [Chemistry] [Tuesday] Chemical Bonding and Molecular Structure                      | Chemistry             |
| 15 | 14. [Environmental Science] [Wednesday] Climate Change: Causes, Effects, and Solutions  | Environmental Science |
| 16 | 15. [Astronomy] [Thursday] Observational Astrophysics and Cosmic Phenomena              | Astronomy             |
| 17 | 16. [Geology] [Wednesday] Mineralogy and Crystallography                                | Geology               |
| 18 | 17. [Psychology] [Friday] Behavioral Neuroscience and Cognition                         | Psychology            |
| 19 | 18. [Mathematics] [Wednesday] Statistics for Life Sciences                              | Mathematics           |
| 20 | 19. [Computer Science] [Thursday] Machine Learning Applications in Biology              | Computer Science      |
| 21 | 20. [Biochemistry] [Friday] Structural Biology and Enzyme Mechanisms                    | Biochemistry          |

Add a column that extracts the text between the first set of brackets in <column>

Looking at A1:A21, here's 1 formula column to review and insert in Column B:

Class Name

Extracts the name of each science class by isolating the text between the first set of square brackets in each entry.

fx

```
=TEXTBEFORE(TEXTAFTER([@[Science class list]], "[", "]"))
```

Show explanation

|     | B                     |
|-----|-----------------------|
| 1   | Class Name            |
| 2   | Physics               |
| 3   | Biology               |
| 4   | Chemistry             |
| 5   | Environmental Science |
| ... | ...                   |

+ Insert column

AI-generated content may be incorrect



# Split text into two columns

- **Source:** Any dataset with a column that contains text you want to extract to a new column. Add more details to the prompt as needed for the complexity of the data.
- **Prompt:** Add a new column that pulls the country out of the location. Most of the time the country is the value after the last comma, but if the value after the last comma is two capital letters, then set the country to USA.

|    | A          | B                                   | C              |
|----|------------|-------------------------------------|----------------|
| 1  | Date       | Location                            | Country        |
| 2  | 1/5/2023   | New York, NY                        | USA            |
| 3  | 6/29/2024  | Vancouver, British Columbia, Canada | Canada         |
| 4  | 11/30/2023 | Houston, TX                         | USA            |
| 5  | 1/18/2024  | London, United Kingdom              | United Kingdom |
| 6  | 8/9/2024   | Singapore                           | Singapore      |
| 7  | 1/27/2024  | Cape Town, South Africa             | South Africa   |
| 8  | 7/20/2023  | Paris, France                       | France         |
| 9  | 6/17/2023  | Tokyo, Japan                        | Japan          |
| 10 | 8/2/2024   | Sydney, Australia                   | Australia      |
| 11 | 4/15/2023  | Berlin, Germany                     | Germany        |
| 12 | 3/10/2023  | Los Angeles, CA                     | USA            |
| 13 | 12/14/2023 | Toronto, Ontario, Canada            | Canada         |
| 14 | 6/16/2023  | Vancouver, British Columbia, Canada | Canada         |
| 15 | 4/6/2023   | Madrid, Spain                       | Spain          |
| 16 | 8/19/2023  | Rome, Italy                         | Italy          |
| 17 | 2/24/2023  | Cape Town, South Africa             | South Africa   |
| 18 | 12/14/2023 | Buenos Aires, Argentina             | Argentina      |
| 19 | 6/27/2024  | Moscow, Russia                      | Russia         |
| 20 | 3/23/2023  | Beijing, China                      | China          |
| 21 | 5/18/2024  | Mumbai, India                       | India          |
| 22 | 3/10/2023  | São Paulo, Brazil                   | Brazil         |
| 23 | 4/19/2024  | Mexico City, Mexico                 | Mexico         |

Add a new column that pulls the country out of the location. Most of the time the country is the value after the last comma, but if the value after the last comma is two capital letters then set the country to USA.

Looking at A1:B155, here's 1 formula column to review and insert in Column C:

**Country**

Identifies the country of each concert location by checking if the last part of the location string is a two-letter state abbreviation. If it is, it assigns "USA"; otherwise, it extracts the country name from the location.

```
=IF(LEN(TRIM(RIGHT(SUBSTITUTE($B2," ",REPT(" ",LEN($B2))),2,"USA",TRIM(RIGHT(SUBSTITUTE($B2," ",REPT(" ",LEN($B2))),LEN($B2))))
```

Show explanation ▾

|     | C              |
|-----|----------------|
| 1   | Country        |
| 2   | USA            |
| 3   | Ireland        |
| 4   | United Kingdom |
| 5   | Singapore      |
| ... | ...            |

+ Insert column

AI-generated content may be incorrect

# Separate delimited text into separate yes/no columns

- **Source:** Any dataset works, have a column with text in it with separators like semicolons (;) in the values.
- **Prompt:** Create new Yes/No columns for any additional values in <ColumnName> as indicated by the semicolon (;) separator.

| Name                  | Attending review? | Last status update | Number of sales leads | Territories covered | US  | APAC | EMEA |
|-----------------------|-------------------|--------------------|-----------------------|---------------------|-----|------|------|
| Juan Tepaz            | Yes               | 02/01/2024         | 5                     | US; EMEA            | Yes | No   | Yes  |
| Chetana Hegde         | Maybe             | 02/02/2024         | 4                     | APAC                | No  | Yes  | No   |
| Swarnika Soni         | Yes               | 02/14/2024         | 5                     | US; APAC            | Yes | Yes  | No   |
| Carmen Vella          | No                | 02/20/2024         | 5                     | US                  | Yes | No   | No   |
| Akhilesh Khare        | No                | 02/16/2024         | 2                     | EMEA                | No  | No   | Yes  |
| Sigríður Einarsdóttir | Yes               | 02/08/2024         | 2                     |                     | No  | No   | No   |
| Rohini Vasav          | Maybe             | 02/11/2024         |                       | US; EMEA            | Yes | No   | Yes  |
| Neha Benjaree         | Yes               | 02/17/2024         | 1                     | US                  | Yes | No   | No   |
| Jahidi Juma           | Yes               | 02/10/2024         | 1                     | US                  | Yes | No   | No   |
| Sonu Jain             | No                | 02/07/2024         | 2                     |                     | No  | No   | No   |
| Sanjay Puranik        | Maybe             | 02/15/2024         | 4                     | US                  | Yes | No   | No   |
| Shweta Chourasia      | Yes               | 02/09/2024         |                       | US                  | Yes | No   | No   |
| Francisco Tulul       |                   | 02/15/2024         | 1                     | US                  | Yes | No   | No   |
| Isabel Velásquez      | No                | 02/28/2024         | 5                     | US; EMEA; APAC      | Yes | Yes  | Yes  |
| Preeti Rajdan         | Yes               | 02/16/2024         | 5                     |                     | No  | No   | No   |
| Moni Sisodiya         | No                | 02/26/2024         | 4                     | US; EMEA            | Yes | No   | Yes  |
| Darshan Srivastava    | No                | 02/21/2024         | 2                     |                     | No  | No   | No   |
| Reena Shrivastav      | Yes               | 02/19/2024         | 1                     | US                  | Yes | No   | No   |
| Henry Ross            | Maybe             | 02/13/2024         | 5                     | US; EMEA            | Yes | No   | Yes  |
| Devon Torres          | Maybe             | 02/15/2024         | 3                     | US                  | Yes | No   | No   |
| Madison Kim           | Maybe             | 02/05/2024         | 3                     |                     | No  | No   | No   |
| Hannah Jarvis         | Yes               | 02/28/2024         | 1                     |                     | No  | No   | No   |
| Ellis Turner          | Yes               | 02/07/2024         | 2                     | US; EMEA            | Yes | No   | Yes  |
| Shawn Hughes          | Yes               | 02/26/2024         | 2                     | US; EMEA            | Yes | No   | Yes  |
| Andre Lawson          | No                | 02/21/2024         | 5                     | US; EMEA            | Yes | No   | Yes  |
| Rowan Murphy          | No                | 02/04/2024         |                       | US; EMEA            | Yes | No   | Yes  |
| Malik Barden          | Maybe             | 02/01/2024         | 3                     | US; EMEA; APAC      | Yes | Yes  | Yes  |
| Ashley Schroeder      | No                | 02/02/2024         | 2                     | US                  | Yes | No   | No   |

Create new Yes/No columns for any additional values in Territories covered as indicated by the ; separator

Looking at A44:E81, here are 3 formula columns to review and insert in Columns F, G, and H:

- 1. US**  
Identifies whether each person covers the US territory by checking if "US" is listed in their territories covered and marking "Yes" or "No" accordingly.  

```
=IF(ISNUMBER(SEARCH("US", $E45)), "Yes", "No")
```

Show explanation
- 2. APAC**  
Identifies whether each individual covers the APAC territory by checking if "APAC" is mentioned in their list of territories and marking it as "Yes" or "No".  

```
=IF(ISNUMBER(SEARCH("APAC", $E45)), "Yes", "No")
```

Show explanation
- 3. EMEA**  
Identifies whether each person covers the EMEA region by checking if "EMEA" is listed in their territories and marking "Yes" or "No" accordingly.  

```
=IF(ISNUMBER(SEARCH("EMEA", $E45)), "Yes", "No")
```

Show explanation

|     | F   | G    | H    |
|-----|-----|------|------|
| 44  | US  | APAC | EMEA |
| 45  | Yes | No   | Yes  |
| 46  | No  | Yes  | No   |
| 47  | Yes | Yes  | No   |
| 48  | Yes | No   | No   |
| ... | ... | ...  | ...  |

+ Insert columns  
AI-generated content may be incorrect

# More formula use cases

# Change a list of full names from “Last, First” to “First Last”

- **Source:** Any dataset with a list of names in “Last, First” format.
- **Prompt:** Create a new column that shows people’s first names, then a space, then their last names.

|    | A           | B                      | C                     | D                     |
|----|-------------|------------------------|-----------------------|-----------------------|
| 1  | Employee ID | Employee Name          | Full Name             | First Last Name       |
| 2  | 5444        | Tepaz, Juan            | Juan Tepaz            | Juan Tepaz            |
| 3  | 5972        | Hegde, Chetana         | Chetana Hegde         | Chetana Hegde         |
| 4  | 9945        | Soni, Swarnika         | Swarnika Soni         | Swarnika Soni         |
| 5  | 5198        | Vella, Carmen          | Carmen Vella          | Carmen Vella          |
| 6  | 9180        | Khare, Akhilesh        | Akhilesh Khare        | Akhilesh Khare        |
| 7  | 6711        | Einarsdóttir, Sigríður | Sigríður Einarsdóttir | Sigríður Einarsdóttir |
| 8  | 1935        | Vasav, Rohini          | Rohini Vasav          | Rohini Vasav          |
| 9  | 3197        | Benjaree, Neha         | Neha Benjaree         | Neha Benjaree         |
| 10 | 8588        | Juma, Jahidi           | Jahidi Juma           | Jahidi Juma           |
| 11 | 1524        | Jain, Sonu             | Sonu Jain             | Sonu Jain             |
| 12 | 2012        | Puranik, Sanjay        | Sanjay Puranik        | Sanjay Puranik        |
| 13 | 3059        | Chourasia, Shweta      | Shweta Chourasia      | Shweta Chourasia      |
| 14 | 7221        | Tulul, Francisco       | Francisco Tulul       | Francisco Tulul       |
| 15 | 5465        | Velásquez, Isabel      | Isabel Velásquez      | Isabel Velásquez      |
| 16 | 7440        | Rajdan, Preeti         | Preeti Rajdan         | Preeti Rajdan         |
| 17 | 5614        | Sisodiya, Moni         | Moni Sisodiya         | Moni Sisodiya         |
| 18 | 6565        | Srivastava, Darshan    | Darshan Srivastava    | Darshan Srivastava    |
| 19 | 2826        | Shrivastav, Reena      | Reena Shrivastav      | Reena Shrivastav      |
| 20 | 5792        | Ross, Henry            | Henry Ross            | Henry Ross            |
| 21 | 1205        | Torres, Devon          | Devon Torres          | Devon Torres          |
| 22 | 7063        | Kim, Madison           | Madison Kim           | Madison Kim           |
| 23 | 5968        | Jarvis, Hannah         | Hannah Jarvis         | Hannah Jarvis         |
| 24 | 9287        | Turner, Ellis          | Ellis Turner          | Ellis Turner          |
| 25 | 8644        | Hughes, Shawn          | Shawn Hughes          | Shawn Hughes          |
| 26 | 1088        | Lawson, Andre          | Andre Lawson          | Andre Lawson          |
| 27 | 5920        | Murphy, Rowan          | Rowan Murphy          | Rowan Murphy          |

Create a new column that shows people’s first names, then a space, then their last names

Looking at A1:B38, here’s 1 formula column to review and insert in Column C:

**First Last Name**

Reformats each employee’s name to display the first name followed by the last name, making it easier to read and sort names in the table.

fx

=TEXTAFTER(\$B2, ", ") & " " & TEXTBEFORE(\$B2, ", ")

Show explanation ▾

|     | C               |
|-----|-----------------|
| 1   | First Last Name |
| 2   | Juan Tepaz      |
| 3   | Chetana Hegde   |
| 4   | Swarnika Soni   |
| 5   | Carmen Vella    |
| ... | ...             |

+ Insert column

AI-generated content may be incorrect

👍 👎



# Separate first.last@email.com addresses

- **Source:** Any dataset with a list of email addresses in firstname.lastname@domain.com format.
- **Prompt:** Separate <column with email addresses> into two columns for first name and last name.

|    | A                  | B                                 | C                 | D                |
|----|--------------------|-----------------------------------|-------------------|------------------|
| 40 |                    |                                   |                   |                  |
| 41 | <b>Employee ID</b> | <b>Email Address</b>              | <b>First name</b> | <b>Last name</b> |
| 42 | 2200               | Juan.Tepaz@contoso.com            | Juan              | Tepaz            |
| 43 | 9612               | Chetana.Hegde@contoso.com         | Chetana           | Hegde            |
| 44 | 6156               | Swarnika.Soni@contoso.com         | Swarnika          | Soni             |
| 45 | 3313               | Carmen.Vella@contoso.com          | Carmen            | Vella            |
| 46 | 6864               | Akhilesh.Khare@contoso.com        | Akhilesh          | Khare            |
| 47 | 1043               | Sigríður.Einarsdóttir@contoso.com | Sigríður          | Einarsdóttir     |
| 48 | 2501               | Rohini.Vasav@contoso.com          | Rohini            | Vasav            |
| 49 | 4201               | Neha.Benjaree@contoso.com         | Neha              | Benjaree         |
| 50 | 3211               | Jahidi.Juma@contoso.com           | Jahidi            | Juma             |
| 51 | 3562               | Sonu.Jain@contoso.com             | Sonu              | Jain             |
| 52 | 5469               | Sanjay.Puranik@contoso.com        | Sanjay            | Puranik          |
| 53 | 3891               | Shweta.Chourasia@contoso.com      | Shweta            | Chourasia        |
| 54 | 6069               | Francisco.Tulul@contoso.com       | Francisco         | Tulul            |
| 55 | 9882               | Isabel.Velásquez@contoso.com      | Isabel            | Velásquez        |
| 56 | 5965               | Preeti.Rajdan@contoso.com         | Preeti            | Rajdan           |
| 57 | 2885               | Moni.Sisodiya@contoso.com         | Moni              | Sisodiya         |
| 58 | 6410               | Darshan.Srivastava@contoso.com    | Darshan           | Srivastava       |
| 59 | 7725               | Reena.Shrivastav@contoso.com      | Reena             | Shrivastav       |
| 60 | 6790               | Henry.Ross@contoso.com            | Henry             | Ross             |
| 61 | 4010               | Devon.Torres@contoso.com          | Devon             | Torres           |
| 62 | 6332               | Madison.Kim@contoso.com           | Madison           | Kim              |
| 63 | 5544               | Hannah.Jarvis@contoso.com         | Hannah            | Jarvis           |
| 64 | 3013               | Ellis.Turner@contoso.com          | Ellis             | Turner           |
| 65 | 3227               | Shawn.Hughes@contoso.com          | Shawn             | Hughes           |

Separate Email Address into two columns for first name and last name

Looking at A1:B38, here are 2 formula columns to review and insert in Columns C and D:

- 1. First name**  
Extracts the first name of each employee by taking the part of their email address before the period and removing any extra spaces.

fx

=TRIM(LEFT(\$B2,SEARCH(".", \$B2)-1))

Show explanation

- 2. Last name**  
Extracts the last name of each employee from their email address by identifying the text between the period and the "@" symbol.

fx

=TRIM(MID(\$B2,SEARCH(".", \$B2)+1,SEARCH("@", \$B2)-SEARCH(".", \$B2)-1))

Show explanation

|     | C          | D         |
|-----|------------|-----------|
| 1   | First name | Last name |
| 2   | Juan       | Tepaz     |
| 3   | Chetana    | Hegde     |
| 4   | Swarnika   | Soni      |
| 5   | Carmen     | Vella     |
| ... | ...        | ...       |

+ Insert columns

AI-generated content may be incorrect



# Formula help

- **Prompt 1:** Explain this formula: <example of an Excel formula>.
- **Prompt 2:** Can you give me an example of how to use =FORMULANAME in Excel.

Explain a specific formula.

Explain this formula: =[@[Engaged Users]]/[@[Total users Targeted]]

This formula calculates the ratio of engaged users to the total users targeted.

- [@[Engaged Users]] refers to the value in the "Engaged Users" column for the current row.
- [@[Total users Targeted]] refers to the value in the "Total users Targeted" column for the current row.
- The formula divides the number of engaged users by the total number of users targeted for the current row.

AI-generated content may be incorrect



Ask for an example of how to use a specific formula.

Can you give me an example of how to use =TEXTAFTER

Sure! The TEXTAFTER function returns the text that occurs after a specified character or substring. Here's an example: Suppose you have a list of email addresses in column A, and you want to extract the domain part of each email address (the part after the "@" symbol). If cell A1 contains the email address user@example.com, you can use the following formula to extract the domain:

fx



=TEXTAFTER(A1, "@")

This formula will return example.com.

AI-generated content may be incorrect



# Lookups and cross-references across tables/ranges

- **Prompt:** Add a column that shows the revenue in USD. Look up the exchange rates on [worksheet name or column name].

|    | A          | B             | C             | D            | E              | F              | G              | H | I             | J                    | K |
|----|------------|---------------|---------------|--------------|----------------|----------------|----------------|---|---------------|----------------------|---|
| 1  | Date       | Country       | Currency code | Tickets sold | Revenue        | Rev per ticket | Revenue in USD |   | Currency Code | Exchange Rate to USD |   |
| 2  | 3/17/2023  | United States | USD           | 42,000       | 8,304,442      | 198            | 8,304,442.00   |   | ARS           | 0.0035               |   |
| 3  | 4/2/2023   | United States | USD           | 67,144       | 11,190,935     | 167            | 11,190,935.00  |   | AUD           | 0.65                 |   |
| 4  | 4/13/2023  | United States | USD           | 62,500       | 13,837,195     | 221            | 13,837,195.00  |   | BRL           | 0.20                 |   |
| 5  | 4/15/2023  | United States | USD           | 62,500       | 9,560,385      | 153            | 9,560,385.00   |   | CAD           | 0.75                 |   |
| 6  | 4/21/2023  | United States | USD           | 67,144       | 8,472,993      | 126            | 8,472,993.00   |   | CHF           | 1.10                 |   |
| 7  | 5/26/2023  | United States | USD           | 66,655       | 14,716,386     | 221            | 14,716,386.00  |   | EUR           | 1.10                 |   |
| 8  | 8/8/2023   | United States | USD           | 80,000       | 8,957,239      | 112            | 8,957,239.00   |   | GBP           | 1.30                 |   |
| 9  | 8/9/2023   | United States | USD           | 80,000       | 10,436,051     | 130            | 10,436,051.00  |   | MXN           | 0.055                |   |
| 10 | 8/24/2023  | Mexico        | MXN           | 50,865       | 205,709,463    | 4,044          | 11,314,020.45  |   | PLN           | 0.25                 |   |
| 11 | 8/25/2023  | Mexico        | MXN           | 80,000       | 244,487,286    | 3,056          | 13,446,800.73  |   | SEK           | 0.095                |   |
| 12 | 8/26/2023  | Mexico        | MXN           | 84,567       | 189,960,969    | 2,246          | 10,447,853.29  |   | SGD           | 0.73                 |   |
| 13 | 8/27/2023  | Mexico        | MXN           | 60,725       | 236,410,808    | 3,893          | 13,002,594.46  |   | USD           | 1.00                 |   |
| 14 | 11/9/2023  | Argentina     | ARS           | 54,200       | 11,587,214,597 | 213,786        | 40,555,251.09  |   |               |                      |   |
| 15 | 11/10/2023 | Argentina     | ARS           | 54,200       | 11,542,694,528 | 212,965        | 40,399,430.85  |   |               |                      |   |
| 16 | 11/11/2023 | Argentina     | ARS           | 54,200       | 13,295,534,436 | 245,305        | 46,534,370.52  |   |               |                      |   |
| 17 | 11/12/2023 | Argentina     | ARS           | 54,200       | 7,110,556,215  | 131,191        | 24,886,946.75  |   |               |                      |   |
| 18 | 11/17/2023 | Brazil        | BRL           | 40,000       | 65,241,337     | 1,631          | 13,048,267.38  |   |               |                      |   |
| 19 | 11/18/2023 | Brazil        | BRL           | 40,000       | 47,712,515     | 1,193          | 9,542,502.90   |   |               |                      |   |
| 20 | 11/19/2023 | Brazil        | BRL           | 40,000       | 60,886,197     | 1,522          | 12,177,239.40  |   |               |                      |   |
| 21 | 11/25/2023 | Brazil        | BRL           | 76,125       | 56,501,268     | 742            | 11,300,253.60  |   |               |                      |   |
| 22 | 11/26/2023 | Brazil        | BRL           | 76,125       | 57,907,256     | 761            | 11,581,451.28  |   |               |                      |   |
| 23 | 2/7/2024   | Australia     | AUD           | 46,931       | 18,943,185     | 404            | 12,313,070.25  |   |               |                      |   |
| 24 | 2/8/2024   | Australia     | AUD           | 46,931       | 18,708,163     | 399            | 12,160,305.95  |   |               |                      |   |
| 25 | 2/9/2024   | Australia     | AUD           | 46,931       | 14,292,490     | 305            | 9,290,118.50   |   |               |                      |   |
| 26 | 2/10/2024  | Australia     | AUD           | 46,931       | 15,025,212     | 320            | 9,766,387.80   |   |               |                      |   |
| 27 | 2/16/2024  | Australia     | AUD           | 46,931       | 15,584,825     | 332            | 10,160,125.00  |   |               |                      |   |

Copilot

Add a column that shows the revenue in USD. Look up the exchange rates in column J

Looking at A1:F51, here's 1 formula column to review and insert in Column G:

Revenue in USD

Converts the revenue from various currencies to USD by multiplying the revenue by the corresponding exchange rate found in the currency exchange rates table (Table1) based on the currency code.

fx

=[@Revenue] \* XLOOKUP([@Currency code], Table1[Currency Code], Table1[Exchange Rate to USD])

Show explanation

|     | G              |
|-----|----------------|
| 1   | Revenue in USD |
| 2   | 8,304,442.00   |
| 3   | 11,190,935.00  |
| 4   | 13,837,195.00  |
| 5   | 9,560,385.00   |
| ... | ...            |

AI-generated content may be incorrect

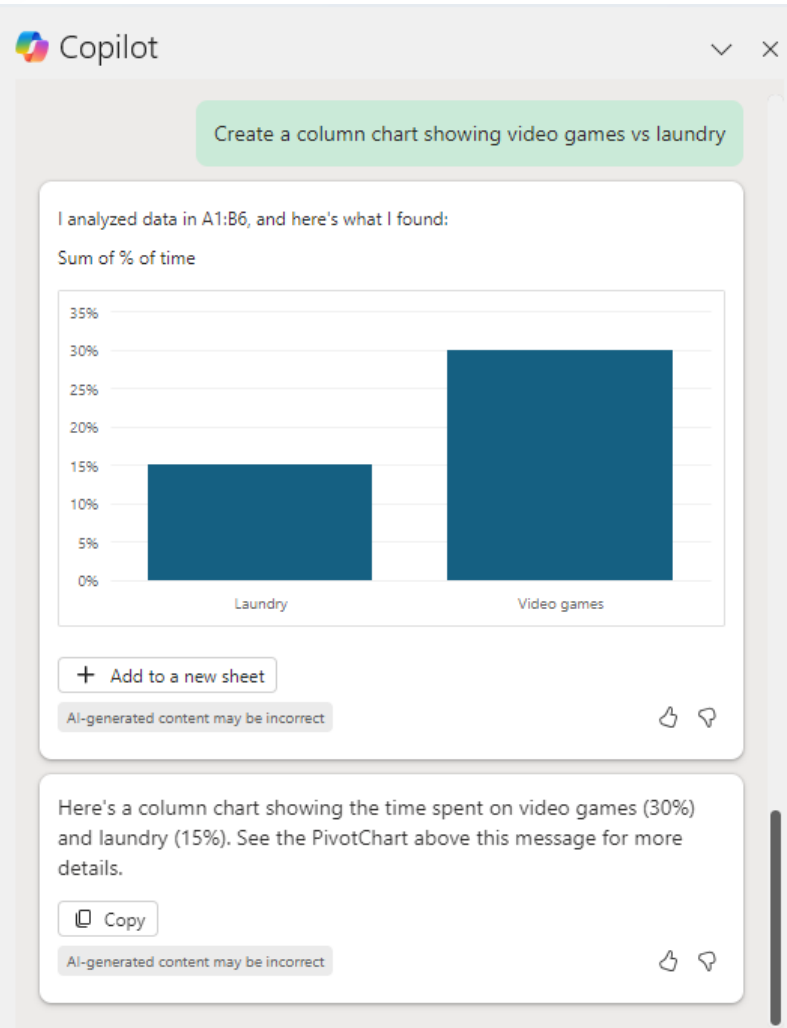


Visualize – charts and color

# Create a column chart and filter to a subset of values

- **Source:** Copy/paste sample below.
- **Prompt:** Create a column chart showing <RowName1> vs <RowName2>.

|    | A                            | B         | C |
|----|------------------------------|-----------|---|
| 1  | Task                         | % of time |   |
| 2  | Video games                  | 30%       |   |
| 3  | Laundry                      | 15%       |   |
| 4  | Cleaning                     | 20%       |   |
| 5  | Creating pie charts          | 25%       |   |
| 6  | Making the pie charts pretty | 10%       |   |
| 7  |                              |           |   |
| 8  |                              |           |   |
| 9  |                              |           |   |
| 10 |                              |           |   |
| 11 |                              |           |   |
| 12 |                              |           |   |
| 13 |                              |           |   |
| 14 |                              |           |   |
| 15 |                              |           |   |
| 16 |                              |           |   |
| 17 |                              |           |   |
| 18 |                              |           |   |
| 19 |                              |           |   |
| 20 |                              |           |   |
| 21 |                              |           |   |
| 22 |                              |           |   |
| 23 |                              |           |   |
| 24 |                              |           |   |
| 25 |                              |           |   |



| Task                     | % of time |
|--------------------------|-----------|
| Video games              | 30%       |
| Laundry                  | 15%       |
| Cleaning                 | 20%       |
| Creating charts          | 25%       |
| Making the charts pretty | 10%       |

# Creating tables and charts with filters

- **Prompt 1:** Show sales volume by county.
- **Prompt 2:** Create a table grouping sales by county.

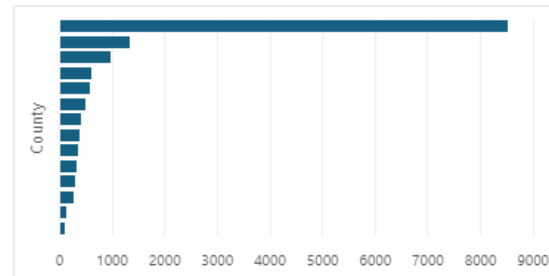
|    | A                            | B     | C            | D             | E     | F           |
|----|------------------------------|-------|--------------|---------------|-------|-------------|
| 1  | Date of transaction          | Sales | County       | City          | State | Postal Code |
| 2  | Thursday, April 16, 2020     | 261   | King         | Skagit        | WA    | 98122       |
| 3  | Tuesday, November 2, 2021    | 449   | King         | Tukwila       | WA    | 98188       |
| 4  | Tuesday, January 12, 2021    | 316   | Kitsap       | Poulsbo       | WA    | 98370       |
| 5  | Saturday, February 25, 2023  | 454   | King         | Kent          | WA    | 98031       |
| 6  | Monday, July 11, 2022        | 16    | King         | Seattle       | WA    | 98136       |
| 7  | Saturday, December 3, 2022   | 17    | Snohomish    | Lynnwood      | WA    | 98036       |
| 8  | Monday, May 9, 2022          | 282   | King         | Federal Way   | WA    | 98023       |
| 9  | Monday, October 4, 2021      | 44    | King         | Bellevue      | WA    | 98004       |
| 10 | Saturday, July 10, 2021      | 20    | King         | Seattle       | WA    | 98199       |
| 11 | Wednesday, October 19, 2022  | 383   | King         | Bellevue      | WA    | 98008       |
| 12 | Monday, May 3, 2021          | 406   | Snohomish    | Bothell       | WA    | 98021       |
| 13 | Tuesday, November 1, 2022    | 302   | King         | Seattle       | WA    | 98106       |
| 14 | Tuesday, June 20, 2023       | 76    | King         | Kirkland      | WA    | 98033       |
| 15 | Saturday, August 26, 2023    | 347   | Benton       | West Richland | WA    | 99353       |
| 16 | Saturday, January 4, 2020    | 56    | King         | Snoqualmie    | WA    | 98065       |
| 17 | Sunday, February 9, 2020     | 221   | Clark        | Camas         | WA    | 98607       |
| 18 | Friday, July 1, 2022         | 467   | King         | Seattle       | WA    | 98115       |
| 19 | Monday, January 2, 2023      | 178   | King         | Redmond       | WA    | 98052       |
| 20 | Thursday, March 11, 2021     | 273   | Snohomish    | Lake Stevens  | WA    | 98258       |
| 21 | Sunday, October 30, 2022     | 85    | King         | North Bend    | WA    | 98045       |
| 22 | Sunday, January 23, 2022     | 440   | Clark        | Battle Ground | WA    | 98604       |
| 23 | Monday, May 2, 2022          | 86    | Yakima       | Yakima        | WA    | 98902       |
| 24 | Friday, October 29, 2021     | 464   | Grays Harbor | Ocean Shores  | WA    | 98569       |
| 25 | Sunday, September 12, 2021   | 96    | King         | Seattle       | WA    | 98115       |
| 26 | Monday, September 12, 2022   | 486   | Pierce       | Lakewood      | WA    | 98499       |
| 27 | Friday, February 3, 2023     | 459   | King         | Federal Way   | WA    | 98003       |
| 28 | Friday, November 10, 2023    | 458   | Spokane      | Spokane       | WA    | 99216       |
| 29 | Monday, May 4, 2020          | 129   | King         | Bothell       | WA    | 98011       |
| 30 | Sunday, January 8, 2023      | 199   | Whatcom      | Bellingham    | WA    | 98229       |
| 31 | Tuesday, November 16, 2021   | 312   | Skagit       | Anacortes     | WA    | 98221       |
| 32 | Thursday, January 5, 2023    | 94    | Pierce       | Buckley       | WA    | 98321       |
| 33 | Saturday, July 3, 2021       | 101   | King         | Duval         | WA    | 98019       |
| 34 | Wednesday, November 24, 2021 | 4     | King         | Maple Valley  | WA    | 98038       |
| 35 | Friday, March 13, 2020       | 344   | Thurston     | Lacey         | WA    | 98516       |
| 36 | Friday, May 5, 2023          | 248   | King         | Bellevue      | WA    | 98007       |
| 37 | Sunday, July 17, 2022        | 273   | Spokane      | Spokane       | WA    | 99208       |
| 38 | Monday, January 11, 2021     | 135   | Thurston     | Olympia       | WA    | 98502       |
| 39 | Thursday, January 9, 2020    | 272   | King         | Bellevue      | WA    | 98006       |
| 40 | Thursday, May 5, 2022        | 50    | Pierce       | Tacoma        | WA    | 98445       |
| 41 | Saturday, May 23, 2020       | 34    | Benton       | Richland      | WA    | 99352       |
| 42 | Friday, December 17, 2021    | 156   | King         | Seattle       | WA    | 98115       |
| 43 | Thursday, July 28, 2022      | 101   | King         | Bellevue      | WA    | 98007       |
| 44 | Monday, February 3, 2020     | 244   | King         | Seattle       | WA    | 98119       |
| 45 | Sunday, November 19, 2023    | 205   | King         | Seattle       | WA    | 98119       |
| 46 | Sunday, January 23, 2022     | 246   | Clark        | Vancouver     | WA    | 98664       |
| 47 | Tuesday, April 5, 2022       | 124   | King         | Bellevue      | WA    | 98006       |
| 48 | Thursday, May 4, 2023        | 112   | King         | Tukwila       | WA    | 98188       |
| 49 | Thursday, June 18, 2020      | 480   | Island       | Oak Harbor    | WA    | 98277       |
| 50 | Sunday, April 23, 2023       | 4     | Clark        | Washougal     | WA    | 98671       |
| 51 | Friday, September 29, 2023   | 206   | King         | Seattle       | WA    | 98109       |
| 52 | Tuesday, March 8, 2022       | 455   | King         | Sammamish     | WA    | 98074       |

Show sales volume by county

I analyzed data in A1:F61, and here's what I found:

'Sales' by 'County'

Sum of Sales



+ Add to a new sheet

AI-generated content may be incorrect

The total sales by county are as follows: King (8542), Pierce (1359), Clark (975), Benton (617), Spokane (586), and others. See the PivotChart above for more details.

AI-generated content may be incorrect

create a table grouping sales by county

I analyzed data in A1:F61, and here's what I found:

| County       | Sum of Sales |
|--------------|--------------|
| Benton       | 617          |
| Clark        | 975          |
| Grays Harbor | 434          |
| Island       | 397          |
| King         | 8542         |
| Kitsap       | 314          |
| Pierce       | 1359         |
| Skagit       | 334          |
| Snohomish    | 511          |
| ...          | ...          |

+ Add to a new sheet

AI-generated content may be incorrect

I have summarized the total sales by each county and visualized it as a table. The total sales by county are as follows: Benton (617), Clark (975), and others. See the PivotTable above for more details.

Copy

AI-generated content may be incorrect

# Beginning your highlighting – empty values

- **Source:** Any dataset works with some values blank in a column.
- **Prompt:** Highlight empty values in <column name> yellow.

|    | A                  | B                   | C           | D    | E       | F                   | G        | H         | I                    | J             | K               | L         | M                | N              | O |
|----|--------------------|---------------------|-------------|------|---------|---------------------|----------|-----------|----------------------|---------------|-----------------|-----------|------------------|----------------|---|
|    | Campaign Owner     | Name                | Launch Date | Year | Quarter | Campaign Type       | Budget   | Revenue   | Total Users Targeted | Engaged Users | Engagement Rate | Reviewed? | Managed account? | Needs updates? |   |
| 1  |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 2  | Cartier, Christian | Billboards small    | 1/3/2024    | 2024 | Q1      | Brand marketing     | \$ 800   | \$ 8,703  | 2,500                | 496           | 19.8%           | No        | No               | No             |   |
| 3  | Glazkov, Ilya      | Product review 3x   | 7/22/2021   | 2021 | Q3      | Customer Experience | \$ 2,750 | \$ 5,676  | 35,000               | 5,418         | 15.5%           | Yes       | No               | Yes            |   |
| 4  | Lawson, Andre      | Targeted - Group 1  | 7/14/2023   | 2023 | Q3      | Digital marketing   | \$ 5,800 | \$ 1,244  | 10,000               | 285           | 2.9%            | No        | Yes              | No             |   |
| 5  | Halima, Yakubu     | Late Jan Email      | 1/27/2021   | 2021 | Q1      | Digital marketing   | \$ 500   | \$ 6,980  | 4,205                | 465           | 11.1%           | Yes       | Yes              | No             |   |
| 6  | Kovaleva, Anna     |                     | 5/9/2022    | 2022 | Q2      | Brand marketing     | \$ 250   | \$ 4,732  | 2,000                | 500           | 25.0%           | No        | Yes              | No             |   |
| 7  | Smith, Avery       | Billboards large    | 9/15/2023   | 2023 | Q3      | Brand marketing     | \$ 4,500 | \$ 5,632  | 10,000               | 362           | 3.6%            | Yes       | No               | Yes            |   |
| 8  | Halima, Yakubu     | Feb email - North   | 7/14/2023   | 2023 | Q3      | Digital marketing   | \$ 500   | \$ 12,423 | 4,205                | 902           | 21.5%           | No        | No               | Yes            |   |
| 9  | Halima, Yakubu     |                     | 11/15/2023  | 2023 | Q4      | Digital marketing   | \$ 500   | \$ 9,293  | 3,687                | 673           | 18.3%           | No        | Yes              | Yes            |   |
| 10 | Halima, Yakubu     | Feb email - West    | 9/12/2021   | 2021 | Q3      | Digital marketing   | \$ 500   | \$ 16,342 | 5,278                | 1,029         | 19.5%           | No        | No               | Yes            |   |
| 11 | Connors, Morgan    | Product mention 5x  | 7/14/2023   | 2023 | Q3      | Sponsorship         | \$ 635   | \$ 2,208  | 55,000               | 1,470         | 2.7%            | No        | No               | Yes            |   |
| 12 | Barden, Malik      | Industry Conference | 12/1/2021   | 2021 | Q4      | Sponsorship         | \$ 600   | \$ 4,540  | 950                  | 618           | 65.1%           | Yes       | No               | Yes            |   |
| 13 | Macedo, Beatriz    | Targeted - Group 2  | 10/1/2023   | 2023 | Q4      | Digital marketing   | \$ 800   | \$ 1,564  | 2,000                | 367           | 18.4%           | Yes       | Yes              | No             |   |
| 14 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 15 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 16 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 17 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 18 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 19 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 20 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 21 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 22 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 23 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 24 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 25 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 26 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 27 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 28 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 29 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 30 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 31 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 32 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 33 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |
| 34 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |



Copilot (Preview)

Highlight empty values

Sure! Looking at **A1:N13**, here's 1 conditional formatting rule to review and apply:

- **Cell values that are blank:** Apply the following to cells in A2:N13
  - Fill color: yellow
  - Font color: black

AaBbCc

AI-generated content may be incorrect



Apply

Done! I made the change.

Undo

AI-generated content may be incorrect





# Continue your highlighting – duplicate values

- **Source:** Any dataset works. Have some duplicate values in a column, or two rows that are duplicates of each other.
- **Prompt:** Highlight duplicate values in <column name> <color> .

|    | A                  | B                   | C           | D    | E       | F                   | G        | H         | I                    | J             | K               | L         | M                | N              | O | F |
|----|--------------------|---------------------|-------------|------|---------|---------------------|----------|-----------|----------------------|---------------|-----------------|-----------|------------------|----------------|---|---|
|    | Campaign Owner     | Name                | Launch Date | Year | Quarter | Campaign Type       | Budget   | Revenue   | Total Users Targeted | Engaged Users | Engagement Rate | Reviewed? | Managed account? | Needs updates? |   |   |
| 1  |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 2  | Cartier, Christian | Billboards small    | 1/3/2024    | 2024 | Q1      | Brand marketing     | \$ 800   | \$ 8,703  | 2,500                | 496           | 19.8%           | No        | Yes              | No             |   |   |
| 3  | Glazkov, Ilya      | Product review 3x   | 7/22/2021   | 2021 | Q3      | Customer Experience | \$ 2,750 | \$ 5,676  | 35,000               | 5,418         | 15.5%           | Yes       | No               | Yes            |   |   |
| 4  | Lawson, Andre      | Targeted - Group 1  | 7/14/2023   | 2023 | Q3      | Digital marketing   | \$ 5,800 | \$ 1,244  | 10,000               | 285           | 2.9%            | No        | Yes              | No             |   |   |
| 5  | Halima, Yakubu     | Late Jan Email      | 1/27/2021   | 2021 | Q1      | Digital marketing   | \$ 500   | \$ 6,980  | 4,205                | 465           | 11.1%           | No        | No               | Yes            |   |   |
| 6  | Kovaleva, Anna     |                     | 5/9/2022    | 2022 | Q2      | Brand marketing     | \$ 250   | \$ 4,732  | 2,000                | 500           | 25.0%           | No        | No               | Yes            |   |   |
| 7  | Smith, Avery       | Billboards large    | 9/15/2023   | 2023 | Q3      | Brand marketing     | \$ 4,500 | \$ 5,632  | 10,000               | 362           | 3.6%            | No        | No               | Yes            |   |   |
| 8  | Halima, Yakubu     | Feb email - North   | 7/14/2023   | 2023 | Q3      | Digital marketing   | \$ 500   | \$ 12,423 | 4,205                | 902           | 21.5%           | No        | No               | No             |   |   |
| 9  | Halima, Yakubu     |                     | 11/15/2023  | 2023 | Q4      | Digital marketing   | \$ 500   | \$ 9,293  | 3,687                | 673           | 18.3%           | No        | No               | Yes            |   |   |
| 10 | Halima, Yakubu     | Feb email - West    | 9/12/2021   | 2021 | Q3      | Digital marketing   | \$ 500   | \$ 16,342 | 5,278                | 1,029         | 19.5%           | Yes       | No               | Yes            |   |   |
| 11 | Connors, Morgan    | Product mention 5x  | 7/14/2023   | 2023 | Q3      | Sponsorship         | \$ 635   | \$ 2,208  | 55,000               | 1,470         | 2.7%            | Yes       | No               | Yes            |   |   |
| 12 | Barden, Malik      | Industry Conference | 12/1/2021   | 2021 | Q4      | Sponsorship         | \$ 600   | \$ 4,540  | 950                  | 618           | 65.1%           | No        | Yes              | Yes            |   |   |
| 13 | Macedo, Beatriz    | Targeted - Group 2  | 10/1/2023   | 2023 | Q4      | Digital marketing   | \$ 800   | \$ 1,564  | 2,000                | 367           | 18.4%           | Yes       | No               | Yes            |   |   |
| 14 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 15 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 16 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 17 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 18 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 19 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 20 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 21 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 22 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 23 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 24 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 25 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 26 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 27 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 28 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 29 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 30 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 31 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 32 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 33 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 34 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |
| 35 |                    |                     |             |      |         |                     |          |           |                      |               |                 |           |                  |                |   |   |



Copilot (Preview)



Highlight duplicate values in launch date red

Sure! Looking at **A1:N13**, here's 1 conditional formatting rule to review and apply:

- **Duplicate Values:** Apply the following to cells in the column "Launch Date"
  - Fill color: pink
  - Font color: black

AaBbCc

AI-generated content may be incorrect



Apply

Done! I made the change.

Undo

AI-generated content may be incorrect



# Finalize your highlighting – yes values

- **Source:** Any dataset works.
- **Prompt:** Highlight cells green where there's a "yes" in one or more columns.

|    | A                  | B                   | C           | D    | E       | F                   | G        | H         | I                    | J             | K               | L         | M                | N              | O |
|----|--------------------|---------------------|-------------|------|---------|---------------------|----------|-----------|----------------------|---------------|-----------------|-----------|------------------|----------------|---|
|    | Campaign Owner     | Name                | Launch Date | Year | Quarter | Campaign Type       | Budget   | Revenue   | Total Users Targeted | Engaged Users | Engagement Rate | Reviewed? | Managed account? | Needs updates? |   |
| 1  | Cartier, Christian | Billboards small    | 1/3/2024    | 2024 | Q1      | Brand marketing     | \$ 800   | \$ 8,703  | 2,500                | 496           | 19.8%           | Yes       | Yes              | Yes            |   |
| 2  | Glazkov, Ilya      | Product review 3x   | 7/22/2021   | 2021 | Q3      | Customer Experience | \$ 2,750 | \$ 5,676  | 35,000               | 5,418         | 15.5%           | Yes       | Yes              | Yes            |   |
| 3  | Lawson, Andre      | Targeted - Group 1  | 7/14/2023   | 2023 | Q3      | Digital marketing   | \$ 5,800 | \$ 1,244  | 10,000               | 285           | 2.9%            | Yes       | Yes              | Yes            |   |
| 4  | Halima, Yakubu     | Late Jan Email      | 1/27/2021   | 2021 | Q1      | Digital marketing   | \$ 500   | \$ 6,980  | 4,205                | 465           | 11.1%           | Yes       | Yes              | No             |   |
| 5  | Kovaleva, Anna     |                     | 5/9/2022    | 2022 | Q2      | Brand marketing     | \$ 250   | \$ 4,732  | 2,000                | 500           | 25.0%           | Yes       | No               | Yes            |   |
| 6  | Smith, Avery       | Billboards large    | 9/15/2023   | 2023 | Q3      | Brand marketing     | \$ 4,500 | \$ 5,632  | 10,000               | 362           | 3.6%            | Yes       | Yes              | Yes            |   |
| 7  | Halima, Yakubu     | Feb email - North   | 7/14/2023   | 2023 | Q3      | Digital marketing   | \$ 500   | \$ 12,423 | 4,205                | 902           | 21.5%           | No        | No               | No             |   |
| 8  | Halima, Yakubu     |                     | 11/15/2023  | 2023 | Q4      | Digital marketing   | \$ 500   | \$ 9,293  | 3,687                | 673           | 18.3%           | No        | Yes              | No             |   |
| 9  | Halima, Yakubu     | Feb email - West    | 9/12/2021   | 2021 | Q3      | Digital marketing   | \$ 500   | \$ 16,342 | 5,278                | 1,029         | 19.5%           | Yes       | No               | No             |   |
| 10 | Connors, Morgan    | Product mention 5x  | 7/14/2023   | 2023 | Q3      | Sponsorship         | \$ 635   | \$ 2,208  | 55,000               | 1,470         | 2.7%            | No        | No               | Yes            |   |
| 11 | Barden, Malik      | Industry Conference | 12/1/2021   | 2021 | Q4      | Sponsorship         | \$ 600   | \$ 4,540  | 950                  | 618           | 65.1%           | No        | Yes              | No             |   |
| 12 | Macedo, Beatriz    | Targeted - Group 2  | 10/1/2023   | 2023 | Q4      | Digital marketing   | \$ 800   | \$ 1,564  | 2,000                | 367           | 18.4%           | Yes       | Yes              | No             |   |

Copilot (Preview)

Highlight cells green where there's a Yes in one or more columns

Sure! Looking at **A1:N13**, here's 1 conditional formatting rule to review and apply:

- **Text contains "Yes":** Apply the following to cells in A2:N13
  - Fill color: green
  - Font color: black

AaBbCc

AI-generated content may be incorrect



Apply

Done! I made the change.

Undo

AI-generated content may be incorrect





# Ask questions about Excel

# Ask questions about Excel

How can I write a formula in Excel that forecasts revenue over time?

To forecast revenue over time in Excel, you can use the FORECAST.ETS function, which is designed for time series forecasting. Here's a step-by-step approach:

1. **Prepare your data:** Ensure you have two columns: one for the time period (e.g., months, quarters) and one for the revenue.
2. **Use the FORECAST.ETS function:** This function will predict future values based on historical data.

Here's an example formula assuming your time periods are in column A (from A2 to A11) and your revenue data is in column B (from B2 to B11):

```
fx
=FORECAST.ETS(A12, B2:B11, A2:A11)
```

This formula will forecast the revenue for the next time period (A12). Adjust the ranges according to your actual data.

AI-generated content may be incorrect



How can I calculate the standard deviation in excel?

To calculate the standard deviation in Excel, you can use the STDEV.P function for the entire population or the STDEV.S function for a sample.

Here's the formula for calculating the standard deviation of a sample:

```
fx
=STDEV.S(range)
```

And for the entire population:

```
fx
=STDEV.P(range)
```

Replace range with the actual range of your data, for example, A1:A10.

AI-generated content may be incorrect



What are some intermediate level keyboard shortcuts I can use in Excel?

Here are some intermediate-level keyboard shortcuts you can use in Excel:

1. **Ctrl + Shift + L:** Toggle filters on and off.
2. **Ctrl + T:** Create a table from the selected data.
3. **Ctrl + ;:** Insert the current date.
4. **Ctrl + Shift + ::** Insert the current time.
5. **Ctrl + Shift + "+":** Insert a new row or column.
6. **Ctrl + "-":** Delete the selected row or column.
7. **Alt + Enter:** Start a new line within a cell.
8. **Ctrl + 1:** Open the Format Cells dialog box.
9. **Ctrl + Shift + \$:** Apply the currency format.
10. **Ctrl + Shift + %:** Apply the percentage format.

These shortcuts can help you work more efficiently in Excel.

AI-generated content may be incorrect



# Ask questions about Excel (continued)

I'm trying to compare two datasets with some duplicates. I want to extract data from Address list 2 which is not present in Address list 1. The list sizes are not the same. How can I do that?

You can use the FILTER function along with the ISNA and MATCH functions to extract data from Address list 2 that is not present in Address list 1. Here's how you can do it:  
Assume:

- Address list 1 is in column A (A2:A100).
- Address list 2 is in column B (B2:B150).

You can use the following formula to extract the addresses from Address list 2 that are not in Address list 1:

```
fx
=FILTER(B2:B150, ISNA(MATCH(B2:B150, A2:A100, 0)))
```

This formula will return the addresses from Address list 2 that are not found in Address list 1.

AI-generated content may be incorrect



How can I prevent other people from incorrectly entering an address in the wrong format in my sheet?

You can use Data Validation to ensure that addresses are entered in the correct format. Here's how you can set it up:

1. **Select the cells** where you want to apply the data validation (e.g., column A).
2. Go to the **Data** tab on the Ribbon.
3. Click on **Data Validation** in the Data Tools group.
4. In the Data Validation dialog box, go to the **Settings** tab.
5. In the **Allow** dropdown, select **Custom**.
6. In the **Formula** box, enter a formula that checks the address format. For example, if you want to ensure that the address contains a street number followed by a street name, you can use a formula like this:

```
fx
=ISNUMBER(LEFT(A1, FIND(" ", A1)-1) * 1)
```

7. Go to the **Input Message** tab to provide a message that will guide users on the correct format.
8. Go to the **Error Alert** tab to set up an error message that will be displayed if the data entered does not meet the criteria.
9. Click **OK** to apply the data validation.

This setup will ensure that users enter addresses in the specified format. Adjust the formula as needed to match your specific address format requirements.

AI-generated content may be incorrect



What's the best Excel formula that most people don't know about?

One of the best Excel formulas that many people don't know about is the LET function. It allows you to assign names to calculation results, making complex formulas easier to read and more efficient. Here's an example of how to use the LET function:

```
fx
=LET(x, A1 + A2, y, A3 + A4, x * y)
```

In this example:

- x is assigned the value of A1 + A2.
- y is assigned the value of A3 + A4.
- The formula then calculates x \* y.

This makes it easier to manage and understand complex calculations.

AI-generated content may be incorrect



# Additional resources



# Links to learn more (1 of 2)

[Copilot in Excel Blog](#) for more examples

[Copilot Readiness Hub](#)

What is Copilot?

- [Introducing Copilot for Microsoft 365](#)
- [The Copilot System](#)
- [ChatGPT vs. Copilot for Microsoft 365: What's the difference?](#)

How Copilot works

- [How Copilot for Microsoft 365 works: Microsoft Mechanics video](#)
- [Semantic Index for Copilot](#)
- [Microsoft Graph](#)
- [Microsoft Graph connectors](#)
- Additional copilot experiences across the Microsoft Cloud
  - [Microsoft Dynamics 365 Copilot](#)
  - [Copilot in Power Platform](#)
  - [Microsoft Security Copilot](#)
  - [GitHub Copilot](#)
  - [Copilot in Microsoft Stream](#)

Privacy

- [Microsoft's privacy policy](#)
- [Microsoft Privacy Statement](#)
- [Trust Center data protection and privacy](#)
- [Data, privacy, and security for Copilot for Microsoft 365](#)
- [Data, privacy, and security for Azure OpenAI Service](#)
- [Role-based access control](#)
- [User permissions and permission levels in SharePoint Server](#)
- [Customer Lockbox requests](#)
- [Microsoft 365 isolation controls](#)
- [Data Protection Addendum](#)

# Links to learn more (2 of 2)

## Data residency and storage

- EU Data Boundary
  - [Website](#)
  - [Blog](#)
  - [Documentation](#)

## Compliance

- [Microsoft Compliance](#)
- [Service Trust Portal](#)
- [Compliance offering definitions](#)
- General Data Protection Regulation (GDPR)
  - [Full summary](#)
  - [Short summary](#)

## Security

- [Configure usage rights for Azure Information Protection \(AIP\)](#)
- [Universal Licensing Terms for Online Services](#)
- [Data Protection Addendum](#)
- [Isolation and Access Control in Microsoft 365](#)

## How to prepare for Copilot for Microsoft 365

- [Learn about Microsoft feedback for your organization](#)
- [Manage Microsoft feedback for your organization](#)
- [How to manage Microsoft Search](#)
- [Microsoft 365 Product Terms](#)
- [Content management and security in SharePoint, OneDrive, and Teams](#)
- [Transcription Management in Copilot for Microsoft 365](#)

## Responsible AI

- Responsible AI core principles
  - [Videos](#)
  - [Documentation](#)
- [Microsoft Responsible AI Standard](#)
- [Governing AI: A Blueprint for the Future](#)