

Time Series Analysis in Microsoft Excel



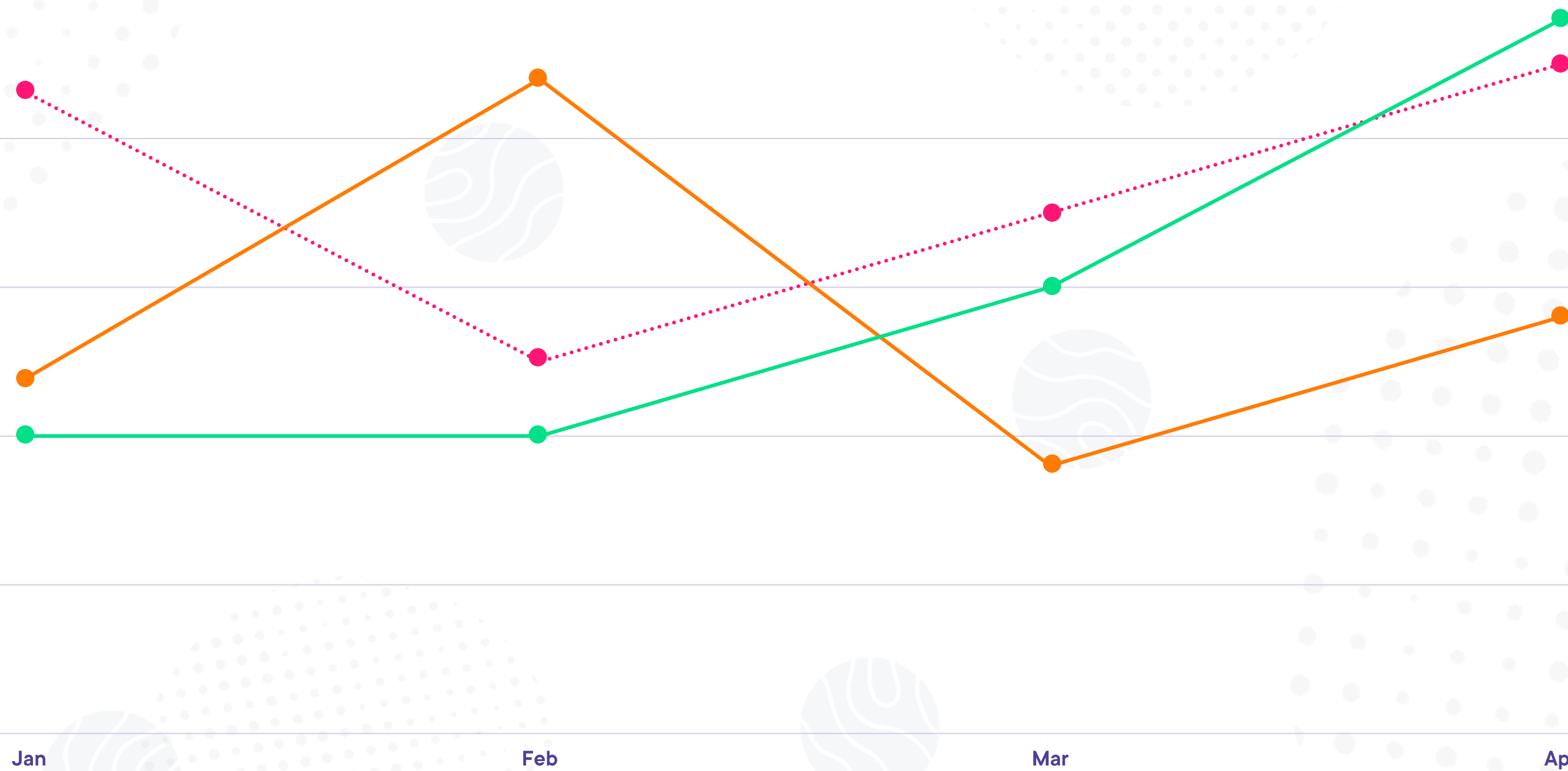
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What Is Time Series Data?



Time Series Analysis

Statistical techniques that allow us to interpret data at consistent time intervals

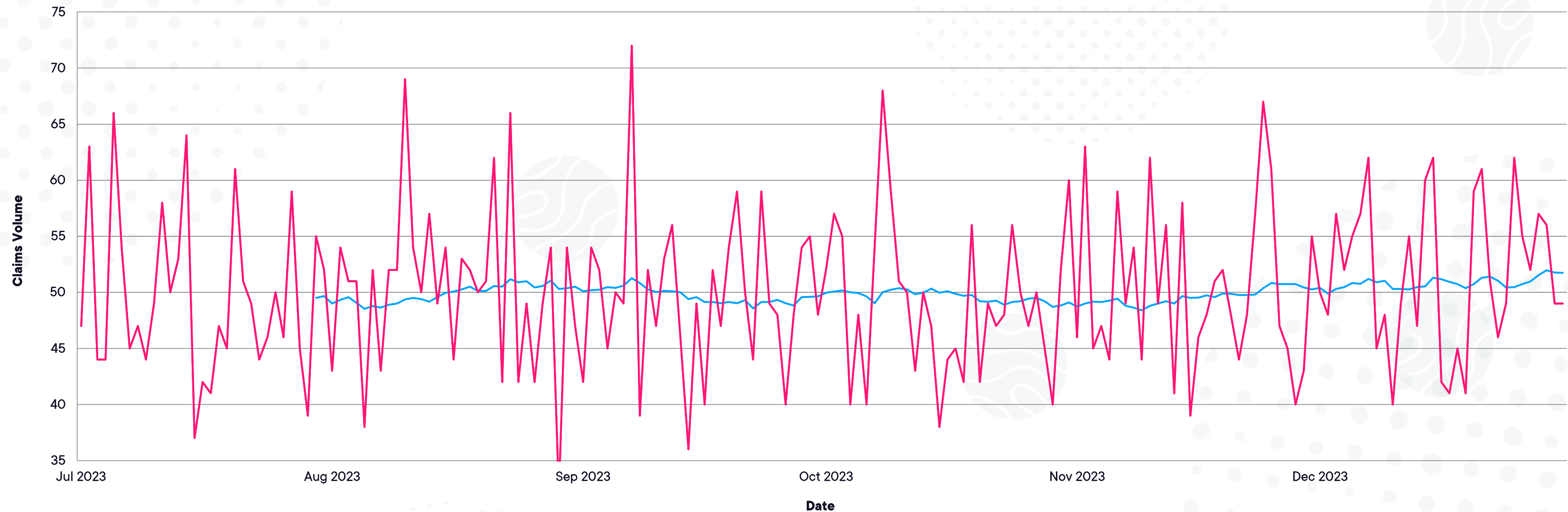
Widely used in fields like, finance, economics, and marketing to track trends over time



Calculating Moving Averages in Microsoft Excel



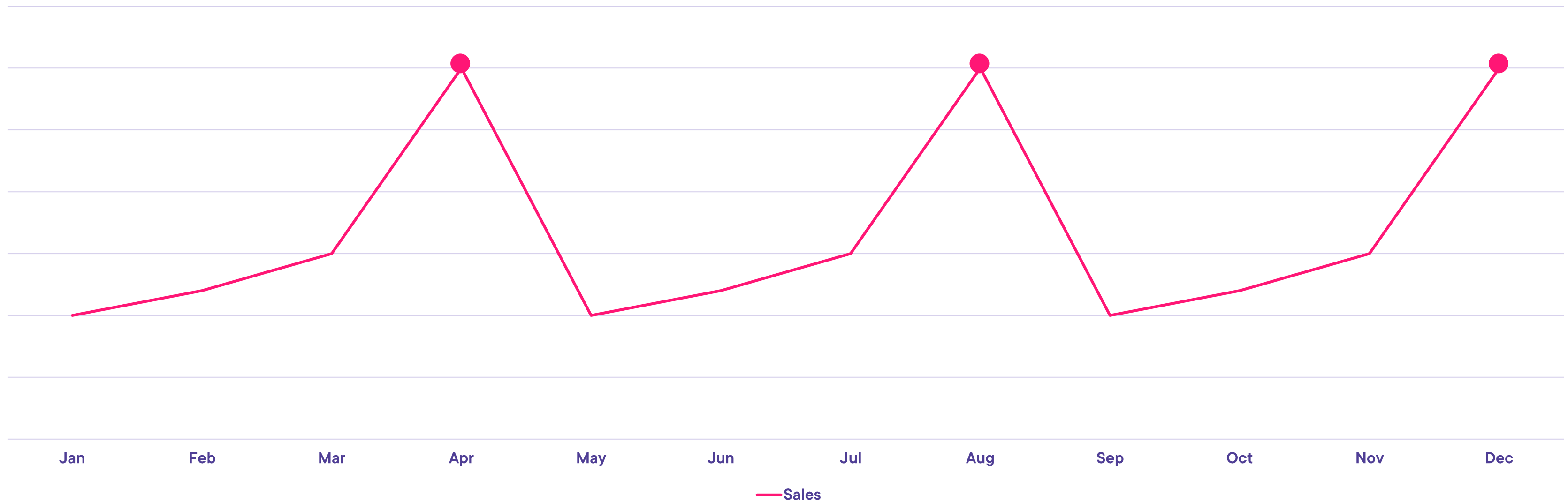
Moving Average



The moving average is useful in time series analysis when you want to understand an underlying trend without the noise of short-term variations.



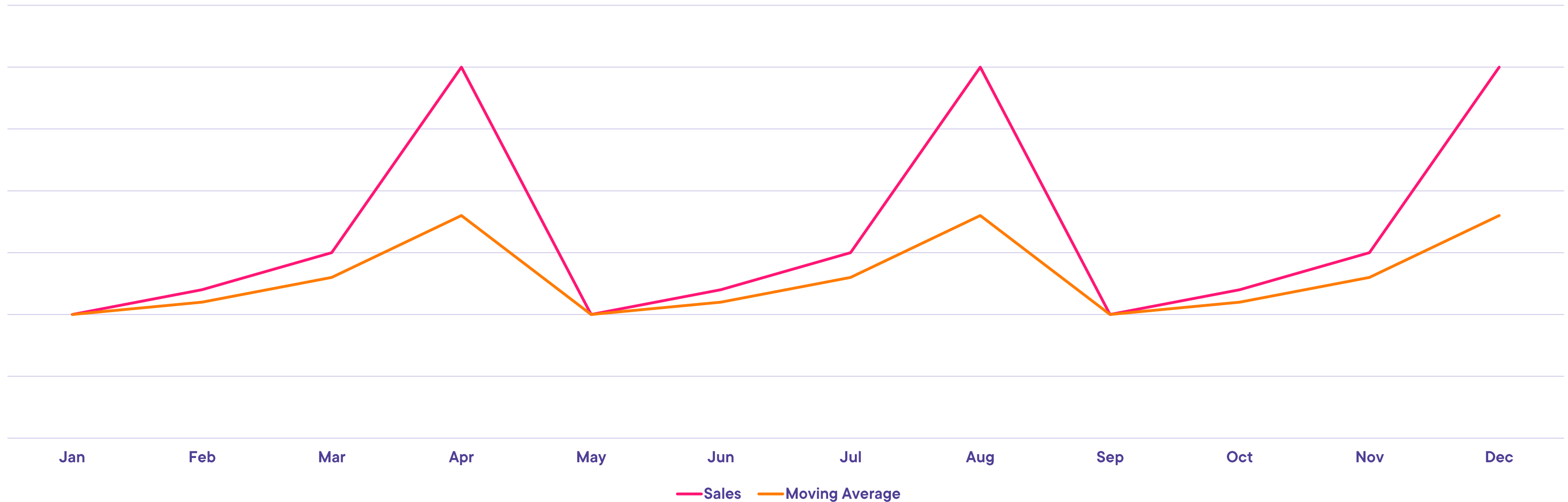
Seasonality



Seasonality refers to regular and predictable changes that occur over specific periods, such as increased sales during certain months of the year.



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Moving averages allow you to gain insights that may not be immediately apparent from the raw data, by revealing trends.



Creating a Time Series Line Chart in Microsoft Excel





Forecasting Future Trends in Microsoft Excel





Forecasting

By predicting future values based on historical data, you can make informed decisions.



FORECAST.LINEAR Arguments

x value

The data point for which you want to predict a value

known_y's

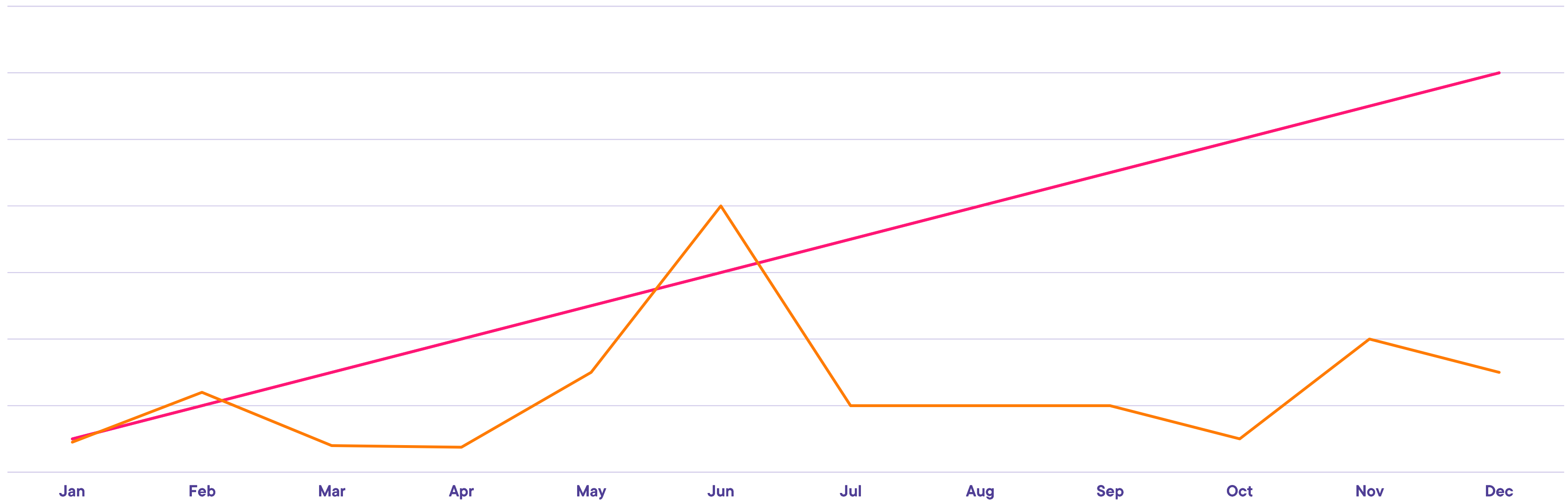
Actual results or measurements you've collected

known_x's

Values you use to make a prediction



Limitations



FORECAST.LINEAR is based on linear regression, which assumes a linear relationship between your variables.
Not all data fits this pattern; predictions for non-linear trends may be inaccurate.





Visualize your data and look for patterns before relying on linear forecasting methods

This way, you can ensure your analysis aligns with the data, leading to more accurate and actionable insights.



Thank you for your time!

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