

Real Estate Math Tutorials

The tutorials in this guide provide the basics for assessing commercial real estate investment opportunities using Microsoft Excel.

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Gross Operating Income (GOI)

In this tutorial, learn how to utilize a commercial investment property's income, vacancy, and credit losses data to calculate the property's Gross Operating Income (GOI).

- [Calculating Gross Operating Income \(GOI\)](#)
- [Gross Operating Income Spreadsheet](#)

Net Operating Income (NOI)

In this tutorial, learn how to utilize a commercial investment property's income and expenses data to calculate the property's Net Operating Income (NOI).

- [Calculating Net Operating Income](#)
- [Net Operating Income Spreadsheet](#)

Cash Flow Analysis

In this tutorial, learn how to conduct a cash flow analysis, on a before and after tax basis, for commercial investment properties.

- [Running a Cash Flow Analysis](#)
- [Cash Flow Analysis Spreadsheet](#)

Internal Rate of Return (IRR) and Net Present Value (NPV)

In this tutorial, learn how to calculate simple and compound interest, Internal Rate of Return (IRR), and Net Present Value (NPV) for commercial real estate investment properties. Also learn how to calculate a lease buyout.

- [Calculating Internal Rate of Return \(IRR\) and Net Present Value \(NPV\)](#)
- [IRR and NPV Spreadsheet](#)

Overall Rate of Return

In this tutorial, learn how to calculate a commercial real estate property's overall rate of return, investor cash-on-cash returns, and the loan constant.

- [Calculating the Overall Rate of Return](#)
- [Overall Rate of Return Spreadsheet](#)

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