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The High-Risers Club

**3.11.2025 – Math Equations You Must Know to Value, Sell or Lease
Commercial Real Estate: Part 2**

Coach Jeff Wright

Welcome

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Does anyone have anything great to share personally or professionally?



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Greatness is Within

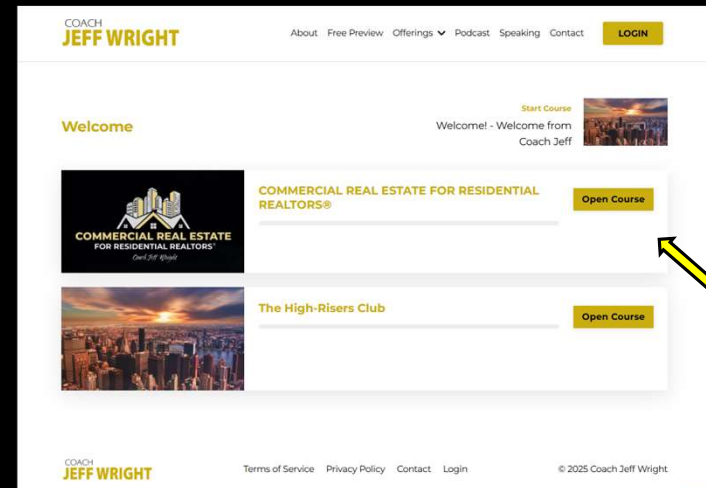
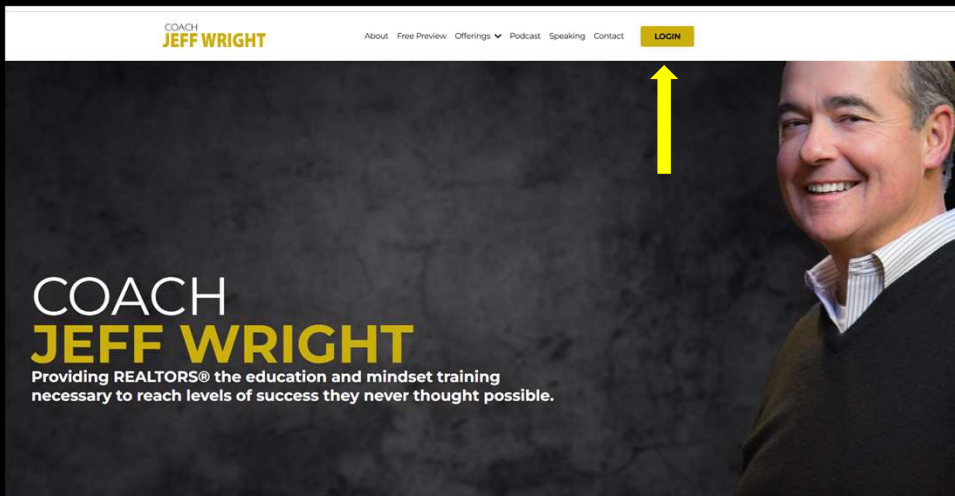


You Can Do This

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Accessing the Equations Workbook

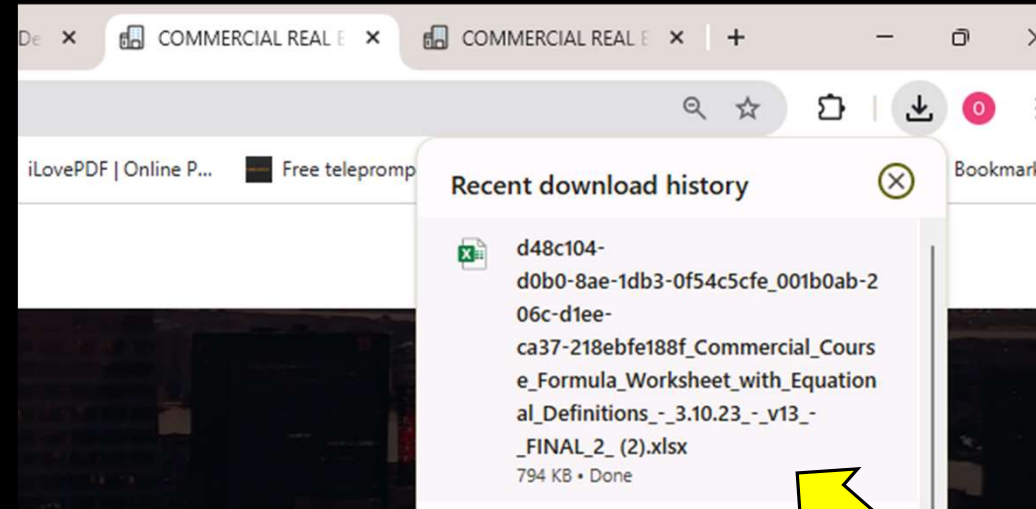
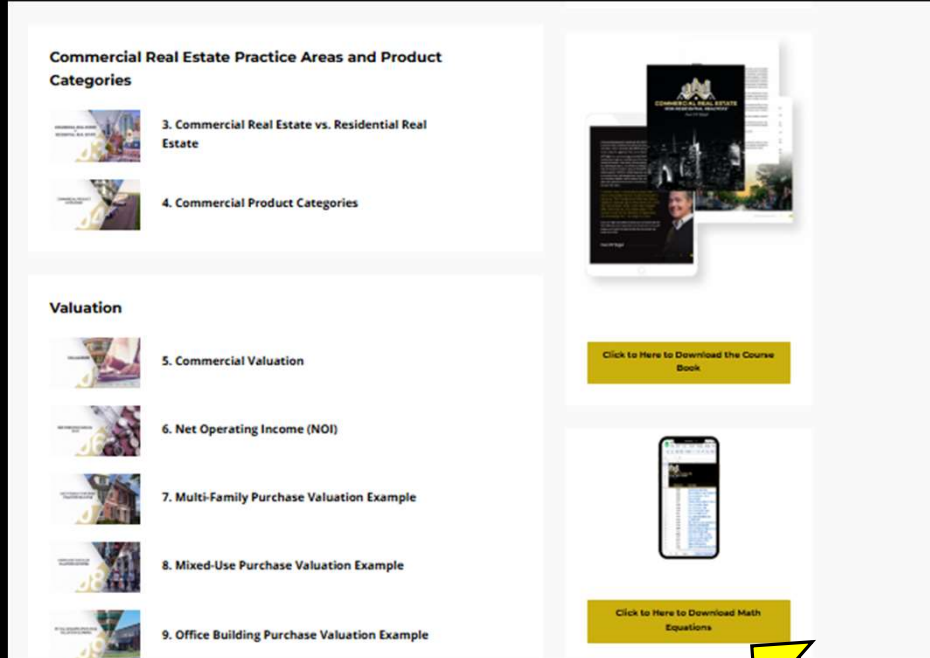
1. Navigate to www.coachjeffwright.com
2. Login
3. Open Commercial Real Estate for Residential REALTORS® Course
4. Scroll & select “Click Here to Download Math Equations”



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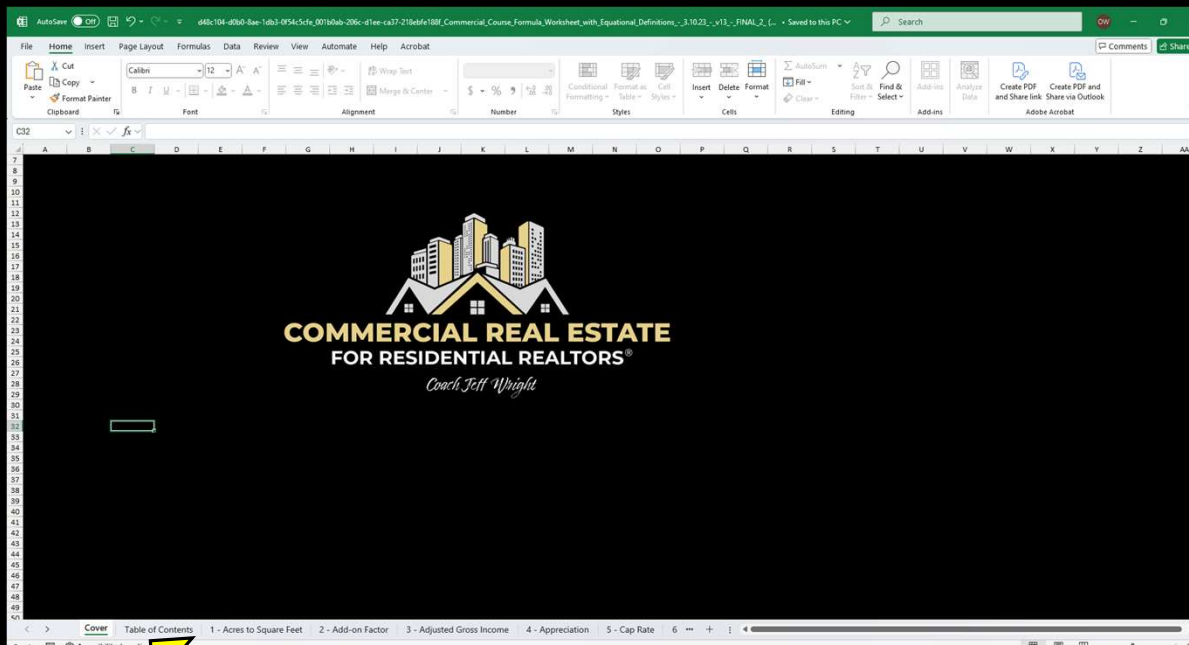
Accessing the Equations Workbook

4. Scroll & select “Click Here to Download Math Equations”
5. Open Download



Accessing the Equations Workbook

4. Navigate to any equation via tabs or table of contents



Section	Textbook	Formula
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3	366	Adjusted Gross Income
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19	377	Gross Building Area
20	378	Gross Operating Income (GOI)
21	379	Gross Rent Multiplier (GRM)

Accessing the Equations Workbook

4. Plug in numbers & to see workbook compute your equation.

***Note: You will only be allowed to edit light yellow cells, other columns are locked so the formula does not change.



ACRES TO SQUARE FEET	
Acres	3.0
x Square Feet / Acre	43,560
= Square Footage	130,680 SF



ADD-ON FACTOR (LOAD FACTOR, CORE FACTOR)	
Building Rentable Square Footage	20,125 SF
÷ Building Usable Square Footage	17,500 SF
= Add-on Factor (Load Factor, Core Factor)	1.15

Please reach out to owright@coachjeffwright.com with any issues.

Acres to Square Feet

1 Acre = 43,560 Square Feet

Question: If a property's total acreage is 3, then the square footage would be computed as:

$$43,560 \times 3 = 130,680 \text{ SF}$$

Add-on Factor (Load Factor, Core Factor)

$$\frac{\text{Building Rentable Square Footage}}{\text{Building Usable Square Footage}} = \text{Add-on Factor}$$

Question: If the rentable square footage of a building is 20,125 square feet and the usable square footage is 17,500, then the load factor is:

$$\frac{20,125}{17,500} = 1.15$$

Question: If the load factor is 15% and the usable space for the tenant is 2,000 SF, then the rentable space for the tenant would be computed as:

$$2,000 \times 1.15 = 2,300$$

Appreciation

Future Resale Price - Original Purchase Price = Appreciation

Question: If the original purchase price of a property was \$500,000, determine the property's appreciated value if the future resale value is \$750,000.

$$\$750,000 - (\$500,000) = \$250,000$$

Cap Rate (Capitalization Rate)

$$\frac{\text{Net Operating Income}}{\text{Sales Price (Value)}} = \text{Cap Rate}$$

Question: Property A has a net operating income (NOI) of \$216,000 and a sales price of \$2,700,000. Property B has an NOI of \$220,000 and a sales price of \$2,275,000. What are the indicated cap rates and how do they compare?

$$\text{Property A} \quad \frac{216,000}{\$2,700,000} = 8\%$$

$$\text{Property B} \quad \frac{220,000}{\$2,275,000} = 9.67\%$$

Cash Flow (Annual)

$$\begin{aligned} &\text{Net Operating Income} \\ &\text{- Annual Debt Service} \\ &= \text{Annual Cash Flow} \end{aligned}$$

Question: If the property has an NOI of \$216,000, what will be the annual cash flow if the property has a mortgage with the following terms:

Mortgage Amount: \$2,025,000
Interest Rate: 4.25%
Amortization: 25-years
Annual Debt Service: \$131,642

$$\begin{aligned} &\$216,000 \\ &\text{- } (\underline{\$131,642}) \\ &= \$84,358 \end{aligned}$$

Cash-on-Cash Return

$$\frac{\text{Annual Cash Flow}}{(\text{Down Payment} + \text{Soft Costs})} = \text{Cash-on-Cash Return}$$

Question: The first year's annual cash flow before taxes is \$40,000 and the down payment is \$400,000. If soft costs are \$64,000, what is the investor's cash-on-cash return?

$$\frac{\$40,000}{(\$400,000 + \$64,000)} = 8.62\%$$

Costs of Sale

Sale Price × Closing Costs = Costs of Sale

Question: If the sales price of a property is \$500,000 and the closing costs are estimated to amount to 7%, what are the estimated closing costs?

$$\$500,000 \times 0.07 = \$35,000$$

Effective Gross Income

$$\begin{aligned} & \text{Potential Gross Income} \\ & - (\text{Vacancy} + \text{Credit Loss}) \\ \hline & = \text{Effective Gross Income} \end{aligned}$$

Efficiency Percentage

$$\frac{\text{Usable Square Feet}}{\text{Rentable Square Feet}} = \text{Efficiency Percentage}$$

Question: If a property has approximately 5,000 square feet of rentable square feet, but only 3,750 square feet is usable, what is the property's efficiency percentage?

$$\frac{3,750}{5,000} = 75\%$$

Expenses per Rental Unit

$$\frac{\text{Operating Expenses}}{\text{Number of Rental Units}} = \text{Expenses per Rental Unit}$$

Question: If the annual operating expenses on a property are \$160,000 and there are 10 units available to rent, what are the annual expenses per unit?

$$\frac{\$160,000}{10} = \$16,000$$

Expenses per Square Foot

$$\frac{\text{Operating Expenses}}{\text{Square Feet}} = \text{Expenses per Square Foot}$$

Question: If the annual operating expenses on a property are \$255,820 and the net rentable area is 30,795 square feet, what are the annual expenses per square foot?

$$\frac{\$255,820}{30,795} = \$8.31$$

Gross Building Area

Building Dimensions x Number of Floors = Gross Building Area

Question: If a building consists of three floors and its measurement is 71 feet x 100 feet, what is the gross building area?

$$7,100 \times 3 = 21,300 \text{ SF}$$

Gross Operating Income (GOI)

$$\begin{array}{r} \text{Potential Gross Income} \\ - \text{(Vacancy + Credit Loss)} \\ \hline = \text{Gross Operating Income} \end{array}$$

Question: If the potential income of a property is \$240,000 and the vacancy and credit loss is 5%, what is the Effective Gross Income?

$$\$240,000 - (\$12,000) = \$228,000$$