

Real Estate Math and Finance Guide

Wealth Horizons Academy | \$97

MASTER THE NUMBERS THAT DRIVE REAL ESTATE DECISIONS

Every real estate professional who wants to serve clients at the highest level must be fluent in real estate mathematics. This guide makes the math simple, practical and immediately applicable.

SECTION 1: BASIC REAL ESTATE CALCULATIONS

Commission Calculations

Total Sales Price: \$350,000 Commission Rate: 6% Total Commission:
 $\$350,000 \times 0.06 = \$21,000$ Listing side (3%): \$10,500 Buyer side (3%):
\$10,500 After brokerage split (80%): \$8,400

Mortgage Payment Calculation

Principal + Interest payment formula: $M = P \times [r(1+r)^n] / [(1+r)^n - 1]$
Where: - M = monthly payment - P = loan amount - r = monthly interest rate
(annual rate ÷ 12) - n = number of payments

Quick Reference Table (30-year, 7% interest):

Loan Amount	Monthly P&I
\$150,000	\$998
\$200,000	\$1,331
\$250,000	\$1,663
\$300,000	\$1,996
\$400,000	\$2,661

Loan Amount	Monthly P&I
\$500,000	\$3,327

Down Payment and Closing Costs

Purchase Price: \$300,000 Down Payment (20%): \$60,000 Loan Amount: \$240,000 Estimated Closing Costs (2-3%): \$6,000-\$9,000 **Total Cash Needed: \$66,000-\$69,000**

SECTION 2: INVESTMENT PROPERTY MATH

Cap Rate

Net Operating Income ÷ Purchase Price = Cap Rate \$18,000 NOI ÷ \$250,000 purchase = 7.2% cap rate

Cash-on-Cash Return

Annual Cash Flow ÷ Total Cash Invested = Cash-on-Cash Return \$3,600 cash flow ÷ \$60,000 invested = 6% cash-on-cash

Gross Rent Multiplier

Purchase Price ÷ Annual Gross Rent = GRM \$200,000 ÷ \$24,000 = 8.3 GRM (Lower GRM = better value; aim for GRM under 10)

The 1% Rule

Monthly Rent ≥ 1% of Purchase Price \$200,000 property → needs \$2,000/month minimum rent Quick screening tool — not a substitute for full analysis

SECTION 3: COMPARATIVE MARKET ANALYSIS MATH

Price Per Square Foot

Sale Price ÷ Square Footage = Price/SF \$325,000 ÷ 1,800 SF = \$180.56/SF

Adjusting for Differences

Subject property: 1,800 SF Comparable: 2,000 SF at \$360,000 Price/SF of comparable: \$180/SF Adjustment needed: $200 \text{ SF} \times \$180 = \$36,000$ Adjusted comparable: $\$360,000 - \$36,000 = \$324,000$

Days on Market Analysis

Total DOM for sold properties $\div$ Number of properties = Average DOM

Example: $22 + 18 + 35 + 12 + 28 = 115 \div 5 = 23$ average DOM

SECTION 4: BUYER QUALIFICATION MATH

Debt-to-Income Ratio

Monthly Debt Payments $\div$ Gross Monthly Income = DTI $\$2,000 \text{ debts} \div \$6,500 \text{ income} = 30.8\%$ DTI Conventional loan maximum: 45% DTI

Maximum Affordable Purchase Price

Gross Annual Income: \$80,000 Monthly Gross Income: \$6,667 Maximum mortgage payment (28% rule): \$1,867 At 7% interest, 30 years: supports approximately \$280,000 loan Plus 20% down: approximately \$350,000 purchase price

SECTION 5: EQUITY AND WEALTH CALCULATIONS

Building Equity Over Time

\$300,000 home with \$240,000 mortgage Annual appreciation (3%): \$9,000 Annual principal paydown (year 1): \$3,600 **Year 1 equity growth: \$12,600**

After 10 years: Home value (\$300K at 3% growth): \$403,175 Remaining loan balance: \$196,320 **Equity after 10 years: \$206,855**

Educational purposes only. Not professional advice. Results vary.