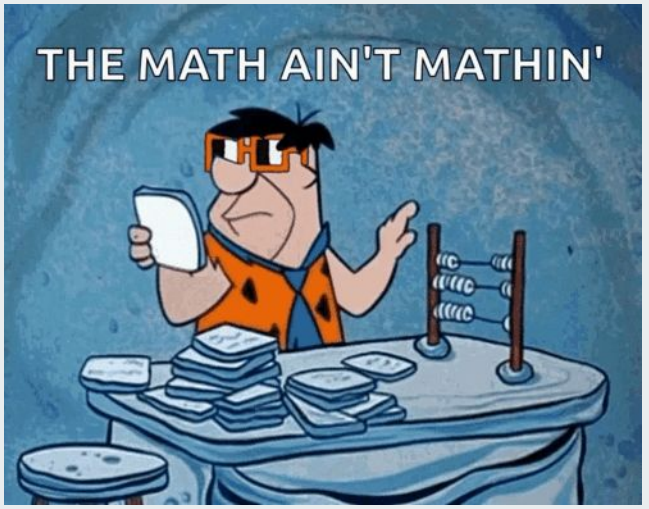


Property Management Math

PRORATED RENT: The amount of rent a tenant is required to pay when they move in or out of a rental property partway through a billing period. It is calculated based on the number of days the tenant actually occupies the unit, rather than paying for a full month or full lease term.

(Rental Rate / Days In The Month) X Days Of Occupancy = Prorated Rent

EXAMPLE: A tenant will be moving in on March 15th and the monthly rent is $1600.00 per month. What will the amount due be for prorated rent?

1600 ÷ 31 = 51.61
51.61 x 17 days = 877.37

ANSWER: The prorated rent for the tenant moving in on March 15th will be $877.37.

VACANCY RATE: A vacancy rate is a percentage that indicates the number of unoccupied rental units or spaces in a specific area or property at a given time. It represents the amount of time a property or unit sits empty between tenants or occupancy periods.

Number Of Vacant Units ÷ Total Number Of Units x 100

EXAMPLE: An apartment building has 400 units out of which 220 are occupied. Calculate the Vacancy Rate.

400 - 220 = 180
(180÷400) X 100 = 45

ANSWER: The vacancy rate is 45%.

MANAGEMENT FEE: A management fee is the amount paid by a property owner to a property manager or company for handling the day-to-day operations of a rental property. The fee is usually a percentage of the monthly rent or a flat monthly rate.

Monthly Rent Collected x Management Fee Percent

EXAMPLE: If the monthly rent is $1,500 and the management fee is 10%

$1500 \times 0.10 = 150$

ANSWER: **$150.00 Management fee**

GROSS POSSIBLE INCOME (GPI): The total income a property could generate if it were fully occupied and all units were rented at their full market rate, without accounting for any vacancies or losses.

Total Rent Per Unit x Total Number Of Units

EXAMPLE: Rental property has 20 rental units, and each unit can be rented for $1,000 per month.

20 X 1,000 = 20,000

ANSWER: Gross Possible Income (GPI) for the property is **$20,000** per month.

EFFECTIVE GROSS INCOME (EGI): The total income a property is expected to generate after accounting for vacancies, additional income and collection losses, but before accounting for operating expenses. It reflects the actual income that a property is generating.

GPI - Vacancy Loss + Other Income

EXAMPLE: A property generates a Gross Possible Income (GPI) of $240,000 per year, representing the maximum potential income if all units are occupied. However, the property experiences $15,000 per year in vacancy loss. In addition, it earns $5,000 annually from other income sources such as parking and laundry. Based on this information, what is the property's Effective Gross Income (EGI)?

240,000 - 15,000 + 5,000 = 230,000

ANSWER: The **Effective Gross Income (EGI)** is **$230,000** per year.

NET OPERATING INCOME (NOI): The total profitability of an income-producing property. It represents the income generated by the property after accounting for operating expenses.

EGI - Operating Expenses

EXAMPLE: A property has an Effective Gross Income (EGI) of $500,000 per year. The total annual operating expenses for the property are $300,000. Based on this information, what is the property's Net Operating Income (NOI)?

500,000 - 300,000 = 200,000

ANSWER: The **Net Operating Income (NOI)** would be **$200,000**.

CASH FLOW: The amount of income left over after all expenses, including debt service (mortgage payments), operating costs, and other relevant expenses, have been paid.

GPI - Vacancy Loss + Other Income - Operating Expenses - Debt Service

EXAMPLE: A rental property has a Gross Possible Income (GPI) of $150,000 per year, experiences $6,000 per year in vacancy loss, and generates $5,000 per year in other income such as parking and laundry. The property also has annual operating expenses of $50,000 and annual debt service (mortgage payments) of $35,000. Based on this information, what is the property's Cash Flow?

EGI - 150,000 - 6,000 + 5,000 = 149,000
NOI - 149,000 - 50,000 = 99,000
Cash Flow - 99,000 - 35,000 = 64,000

ANSWER: The cash flow for this rental property, after accounting for GPI, vacancy loss, other income, operating expenses, and debt service, would be **$64,000 per year**.

CALCULATING PER-UNIT FEE FOR DESIRED PROFIT: To determine what to charge per unit while maintaining a specific profit margin, property managers use a formula that accounts for both total operating costs and the desired percentage of profit. This helps set fees that cover expenses while ensuring profitability.

(Total Cost ÷ Number Of Units) ÷ (1 - Desired Profit Margin)

EXAMPLE: You are managing a 100-unit apartment complex. Your total cost to manage the property is $20,000. You want to earn a 20% profit.

20,000 ÷ 100 = **$200 per unit (cost only)**
200 ÷ (1 – 0.20) = 200 ÷ 0.80 = **$250 per unit**

ANSWER: You would need to charge **$250 per unit** to maintain a 20% profit margin.

CALCULATING ANNUAL RENT FOR COMMERCIAL SPACE: In commercial leasing, rental rates are typically quoted on a per square foot, per year basis. To determine the total annual or monthly rent, multiply the rate by the square footage of the leased space.

Annual Rent = Price Per Square Foot × Total Square Feet
Monthly Rent = Annual Rent ÷ 12

EXAMPLE: A tenant is leasing 2,000 square feet of commercial space. The lease rate is $18.00 per square foot per year.

Annual Rent: 18.00 × 2,000 sq ft = $36,000 per year
Monthly Rent: 36,000 ÷ 12 = $3,000 per month

ANSWER: The tenant will pay $36,000 per year or $3,000 per month in rent.

CAP RATE (Capitalization Rate): The Cap Rate is a key metric used in real estate investing to evaluate the profitability of an income-producing property. It represents the rate of return on an investment property based on its Net Operating Income (NOI) and current market value or purchase price.

NOI/Property Value

EXAMPLE: If a property generates $50,000 in Net Operating Income (NOI) annually and is worth $500,000, the Cap Rate would be:

(50,000 ÷ 500,000) X 100 = 10%

ANSWER: The property is expected to generate a 10% return on the investor's capital.

PROPERTY VALUATION: The process of determining the current market value of a property. It is crucial for various purposes, such as buying, selling, financing, or investment analysis. Property valuation considers a variety of factors, including the property's location, condition, market trends, income potential, and comparable sales in the area.

NOI / CAP Rate

EXAMPLE: If the NOI is $100,000 and the cap rate is 5%, what is the property valuation?
100,000 / 0.05 = 2,000,000

ANSWER: The property value would be $2 million.

Math #1

You manage a 6-plex where each unit rents for $850 per month. What is the Gross Potential Income (GPI) for the entire property for a 12-month period?

$850 x 6 = $5,100

monthly rent *# of units* = *monthly GPI*

$5,100 x 12 = $61,200

total monthly *12* = *annual GPI*

Annual GPI: $61,200

Math #2

What is the monthly management fee on a residential home that rents for $2,000.00 per month if the management fee is 10%?

$2,000 (*monthly rent*) x 10 (*%*) = $200 (*management fee*)

Monthly Mgmt. Fee: $200

Math #3

The rent in a 6-plex is $800 per unit. What is the Effective Gross Income (EGI) if you have 2 vacancies?

$800	x	6	=	$4,800
$/ mo		*# of units*		*GPI*

$4,800	–	(2 x $800)	=	$3,200
GPI		*(vacancies x rent)*		*EGI*

EGI with 2 Vacancies:
$3,200

Math #4

What is the prorated rent on a unit if the monthly rent is $1500.00 per month and the tenant moves in on the 15th of the month. There are 30 days in the month.

$1,500 ÷ 30 = $50.00

monthly rent *# days* *daily rent*

Prorated Rent: $800

$50.00 x 16 = $800.00

daily rent *occupancy days* *pro-rated rent*

Math #5

What is the annual and monthly rent on a commercial space 60’ x 40’ at $7.00 per square foot per year?

60 *length* x 40 *width* = 2400 *square footage*

2400 *sq feet* x $7.00 *$* = $16,800 *annual rent*

$16,800 *annual rent* ÷ 12 *12 months* = $1,400 *monthly rent*

Annual Rent: $16,800
Monthly Rent: $1,400

Math #6

What is the vacancy rate of a single family home that is rented 10 months out of 12 months?

2 ÷ 12 = 0.16

vacant months *total months* *vacancy rate*

Vacancy rate: 16%

Math #7

You have 100 units at 100% occupancy. Rent is $900/ mo per unit. The owner decides to raise the rent 10% the next month and 5 tenants decide to move out. There is now a 95% occupancy. What is the Effective Gross Income with the rent raise?

100 (*# of units*) x $900 (*mo/ rent*) = $90,000 (*monthly GPI*)

10% (*% raised*) x $900 (*mo/ rent*) = $90 (*rent increase*)

$90 (*rent increase*) + $900 (*current rent*) = $990 (*new rent*)

100 (*# of units*) x $990 (*new rent*) = $99,000 (*new GPI*)

Math #7 Cont.

100 (*# of units*) x $990 (*new rent*) = $99,000 (*new GPI*)

$99,000 (*new GPI*) – $90,000 (*old GPI*) = $9,000 (***increased** amount*)

So…
With a 10% increase in rent you have now added $9,000 to your **GPI**

5 (*vacant units*) x $990 (*new rent*) = $4,950 (*vacancy loss*)

BUT, you lost 5 tenants…

$99,000 (*new GPI*) – $4,950 (*vacancy loss*) = $94,050 (*new EGI*)

EGI AFTER increase: $94,050

Math #8

You are managing a 100 unit apartment complex and your cost to manage these units is $20,000. What would your fee per unit have to be to maintain a 20% profit?

COST per unit

$20,000 ÷ 100 = $200

managing cost *# of units* *cost per unit*

FEE per unit

$200 ÷ .8 = $250

cost per unit *profit margin* *fee/ unit*

For 20% Profit:

1. Change 20% to its decimal form of 0.2
2. Subtract 0.2 from 1, equalling 0.8
3. Divide the original cost by 0.8

Math #9

The rent on a single family home is $600 per month with a 12 month lease. However, if there's an incentive of 1 month free rent, what will the monthly effective rent be?

$600 (*monthly rent*) x 12 (*12*) = $7,200 (*GPI*)

$7,200 (*GPI*) – $600 (*mo/ rent*) = $6,600 (*EGI*)

$6,600 (*EGI*) ÷ 12 (*12*) = $550 (*effective rent/ mo*)

Monthly effective rent: $550

For Math #10

50 Units @	$600/ mo
5 Units Vacant	
Maintenance Costs	$1500
Utilities	$500
Management Fee	6%
Debt Service	$8860

CASH FLOW CHART:

GPI

- \- Vacancy/ Collections Issues
- \+ Misc. Income

—----------

= EGI

- \- Operating Expenses

—----------

= NOI

- \- Debt Service

—----------

= CASH FLOW

Math #10

50 Units	@$600/ mo
5 Units Vacant	$3000
Maintenance Costs	$1500
Utilities	$500
Management Fee	$1620
Debt Service	$8860

GPI: $30,000

\- $3,000

\+ $0.00

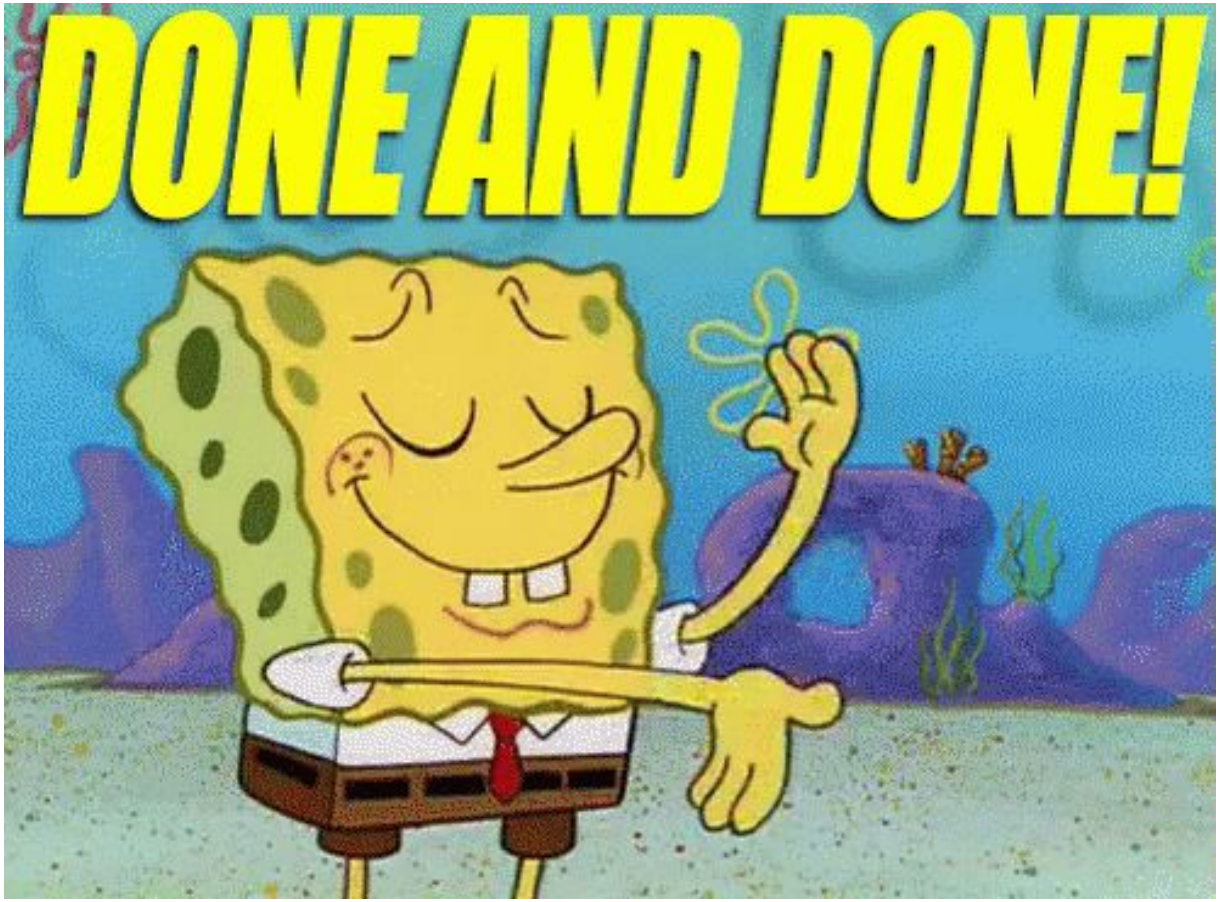
= EGI: $27,000

\- $3,620 ($1,500+ $500 + $1,620)

= NOI: $23,380

\- $8,860

$14,520


DONE AND DONE!

A Final Note on Test Preparation

Don’t Overthink The Questions.

Utilize the Practice Tests & Answer Keys!

Be confident

Visualize the question…what are they actually asking?

Don’t over stress yourself

A pass/ fail has nothing to do with how successful you will be!

If you fail, take it again.

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Let Us Know:

How did you do on the test?

Anything not covered by the course?

Recommendations/ Suggestions?

THANK YOU!!!