



Department of Local Government Finance

Income Approach to Value

Part D

2020 Level I Tutorials

**Level I
Income Approach
Practice Problem # 2**

Developing PGI, EGI, and NOI and Value of Subject

40000 square feet

Of this, 8000 square feet is common area

Market Rent \$20/square foot of net rentable area

Vacancy and Collection loss 6%

Operating Exp and Reserve for Replacement 18%

CAPITALIZATION RATE IS 10%

THE ABOVE IS GIVEN PER PROBLEM---DEVELOP PGI, EGI, & NOI AND THE VALUE OF THIS SUBJECT PROPERTY

Potential Gross Income

Vacancy and Collection Loss

Misc Income

Effective Gross Income

Operating Expenses & Reserves for Replacements

Net Operating Income

WHAT IS THE VALUE OF THIS PROPERTY



Level I
Income Approach
Practice Problem # 2 Answer
 Developing PGI, EGI, and NOI and Value of Subject

POTENTIAL GROSS INCOME	32,000(NLA)	x	\$20(Market Rent)	=	\$640,000 PGI
VACANCY & COLLECTION LOSS	\$640,000(PGI)	x	6%(V&C Loss)	=	-\$38,400
MISC. INCOME	\$0				<u>\$0</u>
EFFECTIVE GROSS INCOME					\$601,600 EGI
OPERATING EXP AND RESERVE FOR REPLACEMENT	\$601,600(EGI)	x	18%(Exp. & R.R.)	=	<u>-\$108,288</u>
NET OPERATING INCOME					<u><u>\$493,312</u></u> NOI

IF THE CAPITALIZATION RATE IS 10%

WHAT IS THE VALUE OF THIS PROPERTY?

THE NET OPERATING INCOME FROM ABOVE IS
 CAPITALIZATION RATE IS

ESTIMATED VALUE OF PROPERTY

$$\frac{\$493,310}{10\%}$$

\$4,933,100

$$I \div R = V$$



Level I
Income Approach
Practice Problem # 3
Developing an Expense Ratio

Using the below information, calculate an expense ratio for each of the four properties.

SC	EGI	EXPENSES	RESERVES		
Riverton	\$469,775	\$135,330	\$15,000		
Eagle Ridge	\$392,440	\$117,500	\$12,000		
Chatham	\$518,760	\$148,000	\$18,000		
Hyde Park	\$318,780	\$88,020	\$10,800		

What is the Median expense ratio?



Level I
Income Approach
Practice Problem # 3 Answer
Developing an Expense Ratio

Given the above information develop an expense ratio to use on our subject property.

SC	EGI	EXPENSES	RESERVES	Total Expense	Exp Ratio
Riverton	\$469,775	\$135,330	\$15,000	\$150,330	32.0%
Eagle Ridge	\$392,440	\$117,500	\$12,000	\$129,500	33.0%
Chatham	\$518,760	\$148,000	\$18,000	\$166,000	32.0%
Hyde Park	\$318,780	\$88,020	\$10,800	\$98,820	31.0%

The Median Expense Ratio is

32.0%



Level I
Income Approach
Practice Problem # 4 (A)
Gross Rent Multiplier Problem VIF Formula

SALES

	1	2	3	4	5
Sale Price	\$45,000	\$56,000	\$48,000	\$53,500	\$58,000
Monthly Rent	\$425	\$520	\$450	\$490	\$525
GRM					

MONTHLY EGI OF SUBJECT PROPERTY

\$475

MEDIAN

USING THE MEDIAN GRM PROVIDE AN INDICATION OF VALUE TO THE NEAREST \$100



Level I
Income Approach
Practice Problem # 4 (A) Answer
Gross Rent Multiplier Problem VIF Formula

	SALES					GRM Rank
	1	2	3	4	5	
Sale Price	\$45,000	\$56,000	\$48,000	\$53,500	\$58,000	105.9
Monthly Rent	\$425	\$520	\$450	\$490	\$525	106.7
GRM	105.9	107.7	106.7	109.2	110.5	107.7
						109.2
						110.5

MONTHLY EGI OF SUBJECT PROPERTY \$475

MEDIAN 107.7

USING THE MEDIAN GRM PROVIDE AN INDICATION OF VALUE TO THE NEAREST \$100

Indication of

value \$475 Times 107.7 \$51,200



**Level I
Income Approach
Practice Problem # 4 (B)
Gross Income Multiplier Problem**

Sale	Sale Price	Effective Gross Income	Gross Income Multiplier
A	\$650,000	\$75,000	
B	\$590,000	\$68,000	
C	\$695,000	\$85,700	
D	\$750,000	\$87,500	
E	\$620,000	\$73,000	

Ranges from _____ to _____

GIVEN YEARLY EGI	RANGE	VALUES
\$72,000		
\$72,000		

Median

PROVIDE THE HIGH AND LOW RANGE VALUES BASED ON THE GIM



Level I
Income Approach
Practice Problem # 4 (B) Answer
Gross Income Multiplier Problem

Sale	Sale Price	Effective Gross Income	Gross Income Multiplier
A	\$650,000	\$75,000	8.7
B	\$590,000	\$68,000	8.7
C	\$695,000	\$85,700	8.1
D	\$750,000	\$87,500	8.6
E	\$620,000	\$73,000	8.5

Ranges from 8.1 to 8.7

\$72,000	LOW	8.1	\$583,200
\$72,000	HIGH	8.7	\$626,400
Median		8.6	\$619,200

ROUNDED TO NEAREST \$100





Income Approach

- This concludes the income approach tutorial and is a reminder that should you have questions you can email these questions to the DLGF.
- Please send emails to Level1@dlgf.in.gov

