CHAPTER 7

Three Approaches to Value

Three Approaches to Value

Sales Comparison

Cost Approach

Income Approach

After determining a value for each approach, the appraiser reconciles the estimates reached, into a single estimate of value – the value conclusion.

Sales Comparison Approach

Compare recent market sales of:

- Solds

Underlying assumption:

Principle of substitution – no buyer will pay more for a property than the cost of acquiring an equally desirable comparable property

Sales Comparison Approach Three Steps

Step 1 - locate comparable sales
Step 2 – adjust for dissimilarities
Step 3 – reconcile the value

Sales Comparison Approach Three Steps

Step 1 - Sales Comparison Approach

Comparable sales must be:

- Similar in size, shape, design and location
- Arm's length transactions
- Sold recently (within the last 12 months)

Sales Comparison Approach Three Steps

Step 1- Sources of comparable sales:

- Local real estate brokerages
- Real estate appraisers
- Multiple Listing Service (MLS)
- County property appraiser's office
- County clerk of court's office

Sales Comparison Approach Three Steps

Step 1 - Information for comparables:

- Date of sale
- Sales price
- Financing terms
- Property location
- Description of property's physical characteristics and amenities
- Terms of sale – arm's length, distress, etc.

Sales Comparison Approach Three Steps

Step 2 – Adjust for dissimilarities:

4 major factors of adjustment

Transactional

- 1) terms and condition of sale – financing
- 2) market conditions – time

Property

- 3) location
- 4) physical characteristics

Step 2 – Adjust for dissimilarities:

Transaction

- Terms and conditions of sale and concessions (financing)
- Assumable mortgage
- Seller paid closing costs
- Distressed sale
- Sold to family members

Sales Comparison Approach Three Steps

Sales Comparison Approach Three Steps

Step 2 – Adjust for dissimilarities transaction:

Market Conditions

- Changes in the market
  - Interest rates
  - Inflation
  - Number of months from last sale
  - Changes in the number of available properties
  - Availability of financing

Sales Comparison Approach
Three Steps

- **Step 2 – Adjust for dissimilarities:**
- **Market Conditions adjustment formula**
Successive Sales Analysis

Resale Price - Initial Sales Price = Price Differential

Price Differential ÷ Initial Sales Price = Percentage of Change

Percentage of Change ÷ # of Months Between Sales = Monthly Rate of Change

Sales Comparison Approach
Three Steps

- **Step 2 – Adjust for dissimilarities:**
- **Market Conditions adjustment formula**
Successive Sales Analysis

<u>Applying the Monthly Rate of Change</u>

1) Multiply initial sale price x the Rate of Change x The # of Months Between Sales

Result = Total Rate of Change in $$$ for This Property

2) Add the result to the Initial Sale Price = Selling Price in Today's Market

Formula: Successive Sales Analysis

Method used to quantify the effect of time on real estate values in a local market

Resale Price	−	Initial Price	÷	Initial Price	=	% of Change	÷	Months Between Sales	=	Monthly Rate of Change

A) $182,900 - $167,000 ÷ $167,000 = .0952096 ÷ 28 = .0034
B) $172,200 - $158,500 ÷ $158,500 = .0864353 ÷ 26 = .0033
C) $174,000 - $160,000 ÷ $160,000 = .0875000 ÷ 22 = .0040

Monthly Rate of Change = .0034 + .0033 + .0040 = .0107 ÷ 3 = .0036

Successive Sales Analysis

Applied

Use the average monthly rate of change from the previous example of .0036.

A property selected as a comparable sold 10 months ago for $148,000. Using the Successive Sales Analysis method, adjust the property to what it would sell for today.

$148,000 x .0036 monthly rate of change = $532.80

$532.80 x 10 months = $5,328 total rate of change

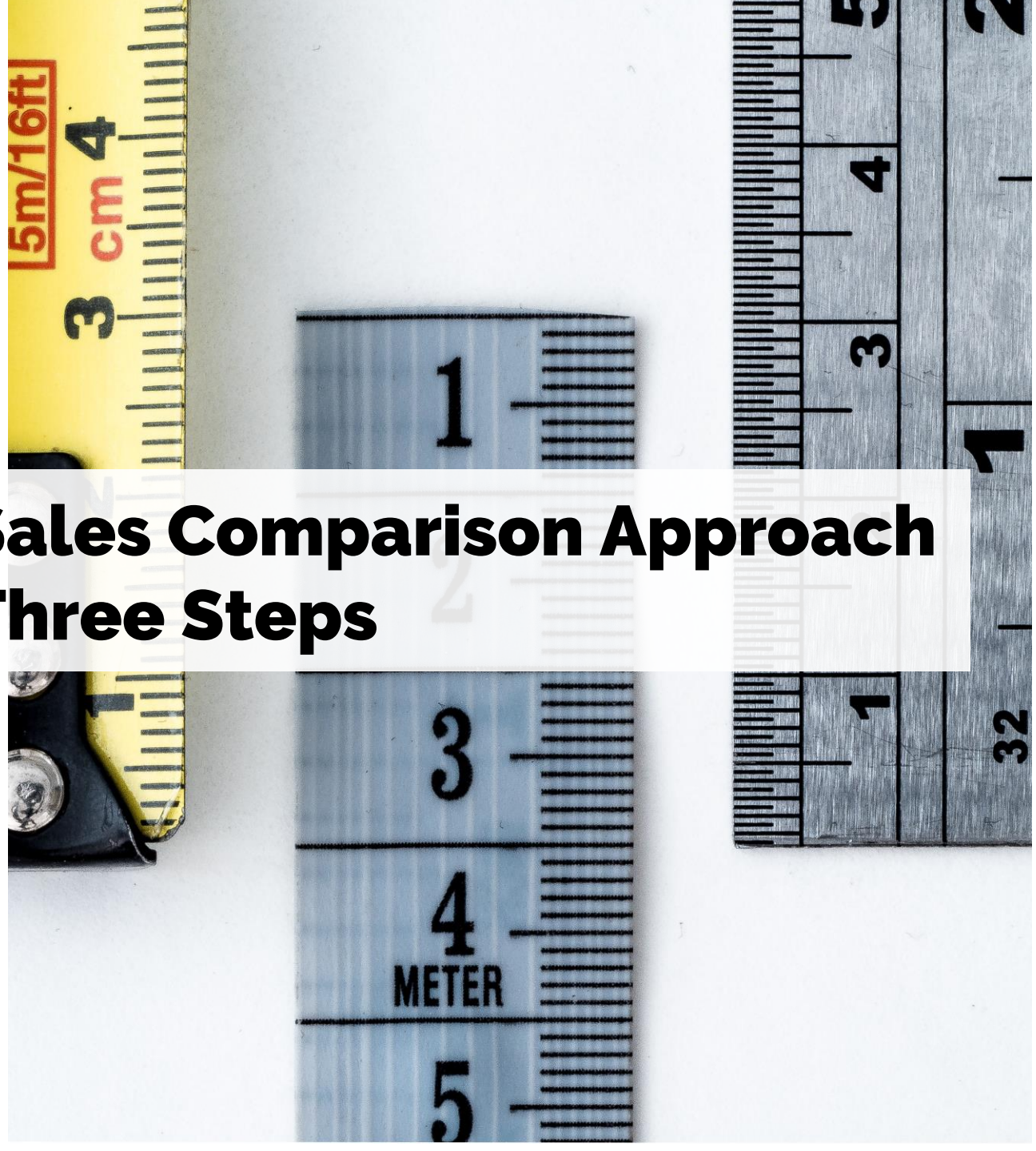
$148,000
+ 5,328
$153,328 Today's indicated Sale Price

Sales Comparison Approach Three Steps

Step 2 – Adjust for dissimilarities: property

Location

- Differences in neighborhoods
- Age
- Type
- Condition of comparables
- Situs
- Zoning & deed restrictions



Sales Comparison Approach Three Steps

Step 2 – Adjust for dissimilarities: property

Physical characteristics

- Lot size
- Square footage
- Age
- Condition
- Construction quality
- Landscaping
- Special features

Sales Comparison Approach - Three Steps

Step 2 - Making the Comparable Adjustments

Memory Aid

Comparable
Better
Subtract
CBS

Comparable
Inferior
Add
CIA

Sales Comparison Approach Three Steps

Step 2 – Sequence of Adjustments

Sequence developed by the Appraisal Institute

1. Normal Sale Price
2. Market Conditions Adjusted Normal Sale Price
3. Final Adjusted Sale Price

Sales Comparison Approach Three Steps

Step 2 – Sequence of Adjustments

Transaction Price

- Financing Terms
- Conditions of Sale
- Sales Concessions

= Normal Sale Price

Normal Sale Price – price the property would have sold for without transaction adjustments for:

Step 2- Sequence of Adjustments

Normal Sales Price (from previous slide)

- Market Conditions (Time, Inflation)

= Market Conditions adjusted Normal Sale Price

(Successive Sales Analysis is a method to determine this)

Market Condition Adjusted Normal Sale Price – price the property would sell for today after adjusting for time:

Sales Comparison Approach Three Steps

Sales Comparison Approach Three Steps

Step 2 – Sequence of Adjustments

Final Adjusted Sale Price – price the property would sell for today after adjusting for location and physical characteristics:

Market Conditions adjusted Normal Sale Price

- Location
- Physical Characteristics

= Final Adjusted Sale Price

Sales Comparison Approach Three Steps

Step 3 – Reconcile the Value

Make all adjustments

- **Goal: make the comparables the same as the subject property to determine sales price**

Sales Comparison Approach:

Similar Properties Used by Licensees for CMA's and BPO's

- Solds with the previous 12 months
- Currently on the market ("for sales")
- Expired listings within the previous 12 months

- **Used for special purpose buildings/properties**
  - Schools
  - Courthouses
  - Churches
  - new residential developments

The Cost Approach

The Cost Approach

Six Steps

Step 1 – today's replacement cost

Step 2 – estimate accrued depreciation

Step 3 – subtract accrued depreciation from current cost

Step 4 – estimate land value

Step 5 – depreciate site improvements

Step 6 - make a final estimate

Step 1 of 6

Replacement Cost

- Cost of building today
- Use materials with similar utility as subject
- Appraisers use cost data from known cost service companies

The Cost Approach

The Cost Approach

Step 1 of 6
Reproduction Cost

- Cost of building today
- Construct a new replica
- Three reproduction cost methods
  - Quantity survey – analyzes cost of each item
  - Unit-in-place –analyzes cost of components (bathrooms, kitchen, 2 garage stall, etc.)
  - Unit-of-comparison – compares cost by square or cubic foot
    - Once cost is established – benchmark for comparison
    - Most commonly used method

Step 2 of 6

Estimate Accrued Depreciation

Three types of depreciation

Depreciation – loss in value for any reason

1. **Physical Deterioration** - Wear and tear, poor condition
2. **Functional Obsolescence** - Does not meet current standards, poor floor plan or an over improvement
3. **External (Economic)** Obsolescence - influence outside property boundaries

The Cost Approach

Step 2 of 6

Estimate Accrued Depreciation

- **Physical deterioration** – loss in value due to wear and tear
- Two types:
  - **Curable** – cost to repair is less than increase in value
    - Painting, cleaning, etc
  - **Incurable** – cost to repair is more than resultant increase in value
    - Replace roof, driveway, kitchen, a/c system

The Cost Approach

Step 2 of 6

Estimate Accrued Depreciation

- **Functional obsolescence**
  - doesn't meet current design needs (4 bedroom home with 1 bathroom).
  - Over improvement – install $100,000 pool in a $150,000 neighborhood

The Cost Approach

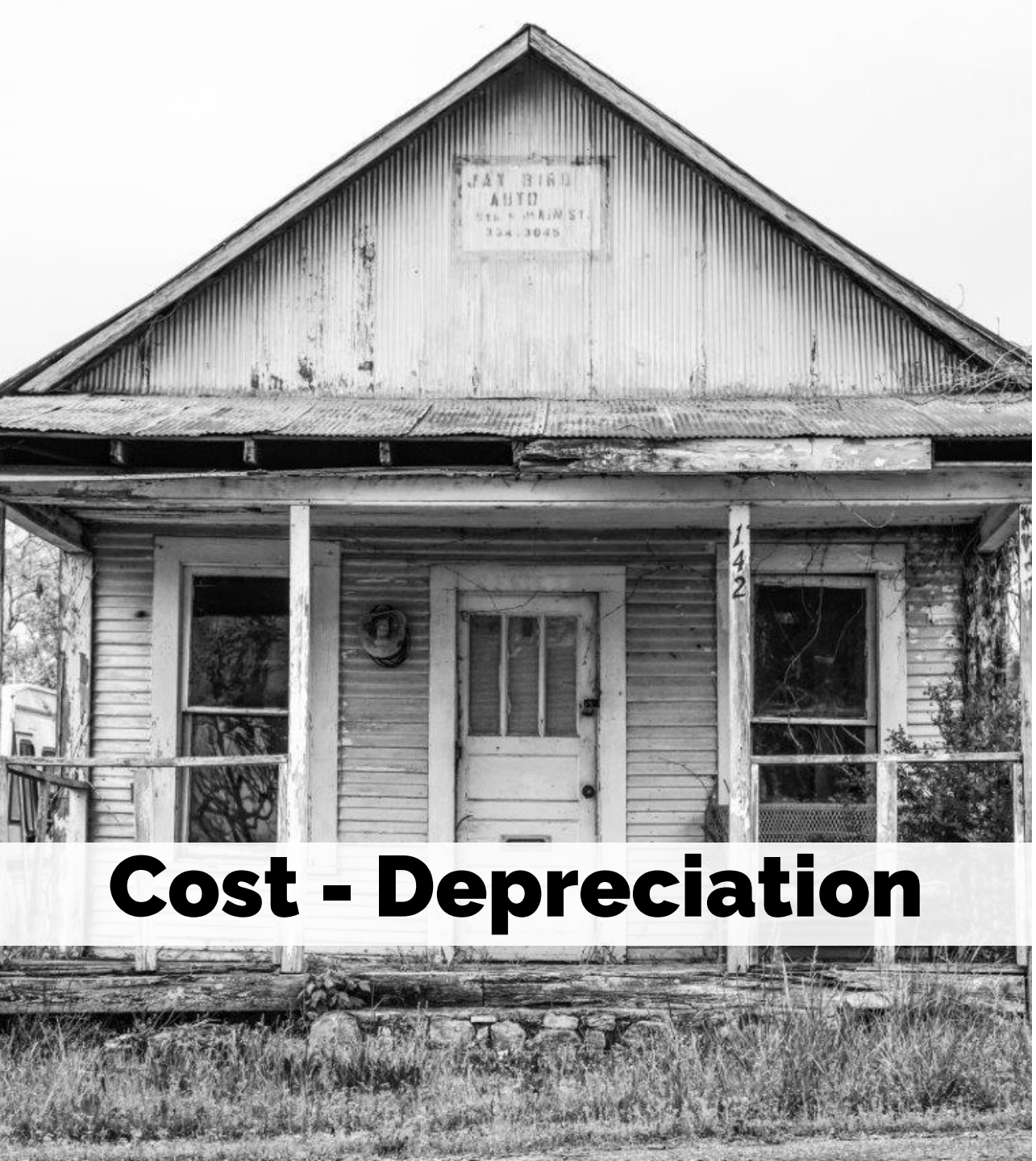
Step 2 of 6
Estimate Accrued Depreciation

- **External obsolescence** – loss in value due to changes in the surrounding environment (outside property boundaries)
- Ex: 24 hour convenience store opens across the street

Step Three – Depreciated Cost of the Structure

- Depreciation - The loss of value due to any cause
- Accrued Depreciation - The total loss in value from all types
- Depreciated Cost of structure – Cost of structure minus accrued depreciation
- Land does not depreciate

Cost-Depreciation Approach



Cost - Depreciation

Effective age

- An estimated age determined by the appraiser taking into consideration the condition of the structure

Actual age

- Chronological age of the building (actual)

Note: If both are given use effective age

Cost-Depreciation Approach

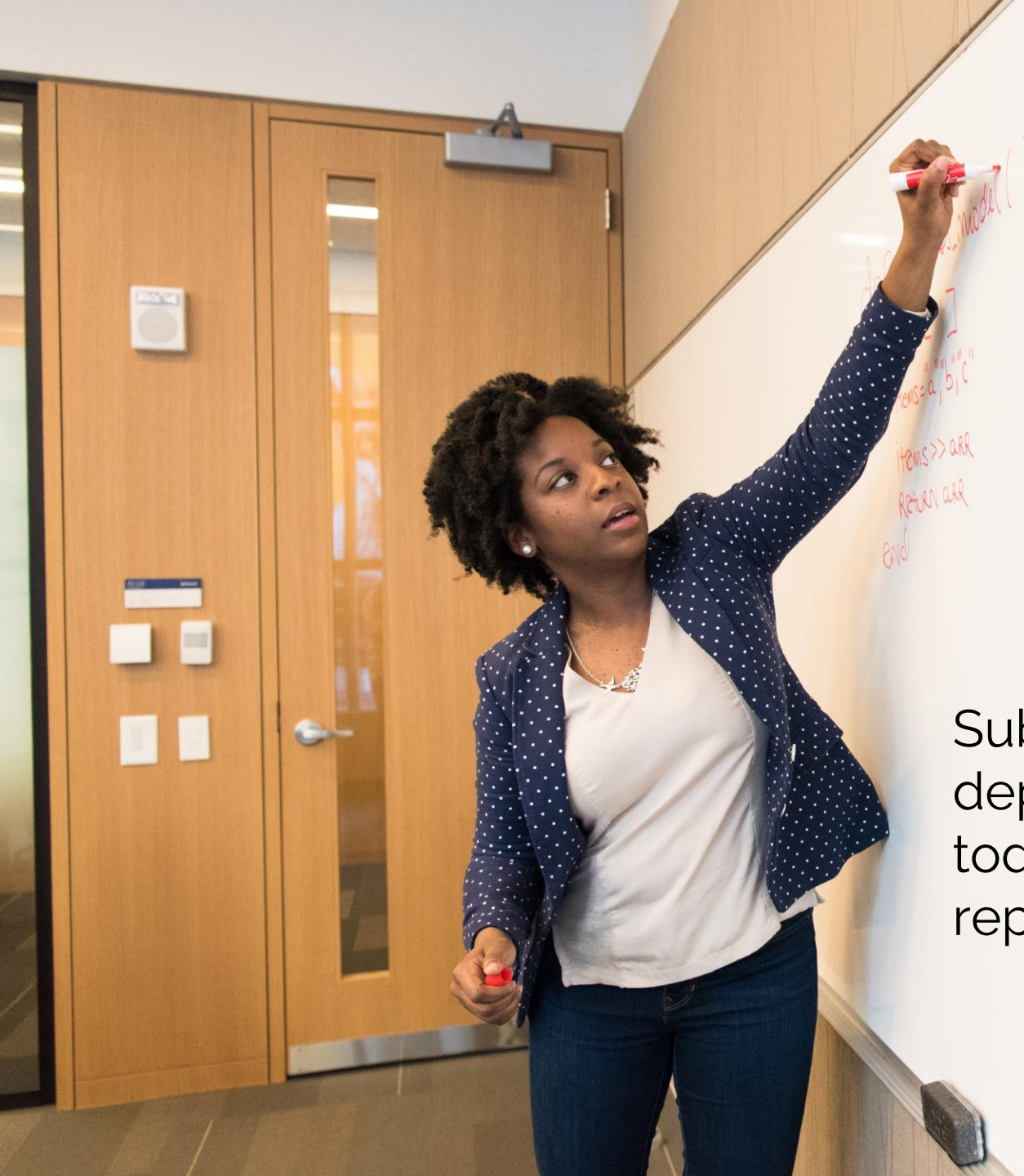
Step Three – Economic Age-Life Method

$$\frac{\text{Effective age}}{\text{Economic Life}} \times \text{Reproduction cost}$$

-or-

$$\frac{\text{Reproduction cost}}{\text{Economic Life}} \times \text{Effective Age}$$

= Accrued Depreciation



Cost-Depreciation Approach

Step Three

Subtract accrued depreciation from today's reproduction cost = Depreciated value of the improvements

Cost-Depreciation Approach

Step Four

Estimate land (site) value as if vacant*

* Vacant land can only be valued by the comparable sales method


Cost-Depreciation Approach
Step Five
Estimate the Site Improvements

Cost-Depreciation Approach

Step Six

Depreciated Cost (from step 4) **+** Value of the Site and Site Improvements **=** Value of Property

(The cost-depreciation approach is not recommended for properties more than 15 years old)

Economic Age-Life Method

Six Steps

1 today's replacement cost

2 estimate accrued depreciation

3 subtract accrued depreciation from today's replacement cost

= Depreciated cost of structures

4 estimate land value

5 Estimate cost new & depreciate site improvements

6 make final estimate

combine values from:

depreciated cost of structures **(step 3)**
land value **(step 4)**
site improvements **(step 5)**

The Cost Approach

The Cost Approach:
Advantages - Disadvantages

Advantages

- most accurate for:
- Public (special buildings)
- New tract housing (few or no comparables)

Disadvantages

- Difficult to measure accrued depreciation
- Older the building, the more difficult to determine depreciation
- Cost to create a new building may differ from market value

Income Approach

- **Income producing property** – value is determined by amount of income to be produced over remaining life of property.
- Method used for apartment buildings and businesses

Income Approach

Math Concept (Net Operating Income (The "I" in IRV)

Potential **G**ross **I**ncome	**PGI**	(or GI)
Vacancy & **C**ollection Loss Allowance	**- V&C**	(% or $)
Other **I**ncome	**+ OI**	
Effective **G**ross **I**ncome	**= EGI**	
Operating **E**xpense		
Fixed **E**xpense		
Variable **E**xpense	**- OE**	(or EXP)
Reserves		
Net **O**perating **I**ncome	**= NOI**	

Income

Three types

- **Potential Gross Income (PGI)**
  - Annual income the property would produce if fully rented and there are no collection losses

- **Effective Gross Income (EGI)**
  - Income after vacancy and collection losses are subtracted and other income is added

- **Net Operating Income (NOI)**
  Income remaining after subtracting all operating expenses

Operating Expenses

Three categories

- **Fixed Expenses (FE) –**
- real estate taxes
- hazard insurance

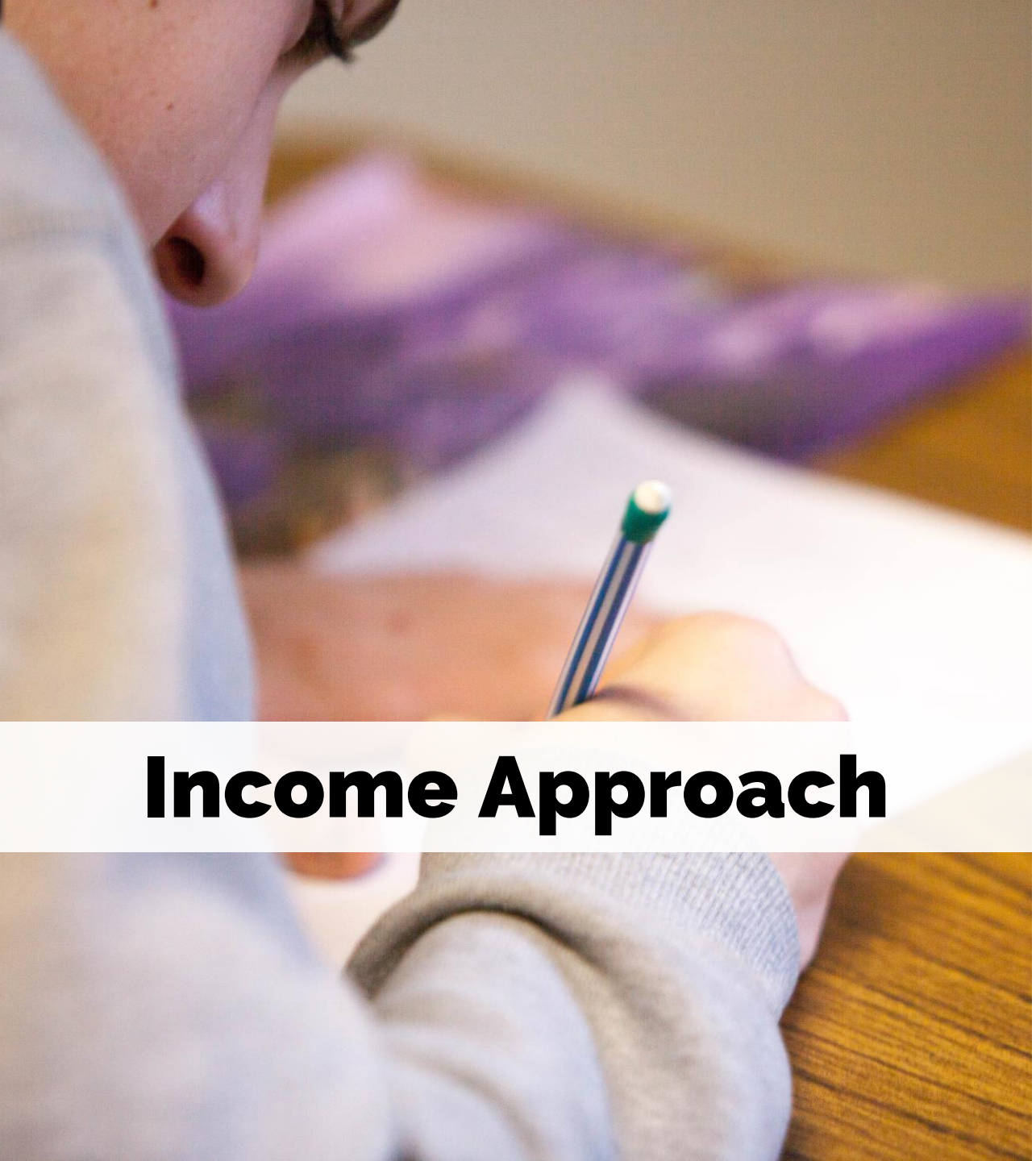
- **Variable Expenses (VE)**
- utilities
- maintenance
- property management

- **Reserve for Replacements (R) –**
- roof covering
- air-conditioning

Operating Expenses

Operating expenses do not include

- Depreciation
- Interest on loans
- Mortgage Payments (Debt Service)
- Income Taxes



Income Approach

$$\frac{I}{R \times V}$$

Overall Capitalization Rate (OAR) - average rate of return received on similar properties

$$\frac{\frac{I}{R = V}}{\frac{I}{V = R}}$$

Gross Income Method

Value Method Using:

Gross rent per month

OR

Gross income per year

Gross Rent Multiplier (GRM)

$$\frac{\text{Sales Price}}{\text{Monthly Rent}}$$

Gross Income Multiplier (GIM)

$$\frac{\text{Sales Price}}{\text{Annual Gross Income}}$$

Gross Income Method Example

Gross Rent Multiplier
Used for residential rentals

Gross Income Multiplier
Used for non-residential rentals

A rental property sold for $400,00 and rented for $3,000/month.
Calculate both multipliers using the GRM & GIM methods

Sales Price	$400,000
Monthly Rent	$3,000

$400,000 ÷ 3,000 = **133.33 GRM**

Sales Price	$400,000
Annual Gross Income	$36,000

$400,000 ÷ 36,000 = **11.11 GIM**

Applied: A rental property that rents for $2,800/month is listing the property for sale. Using the Gross Income Method, determine a listing price.

$2,800 x 133.33 GRM	=	$373,324 indicated list price
$33,600 (12 x 2,800) x 11.11 GIM)	=	$373,296 indicated list price

Reconciliation (Weighted Average)

Comparable Sales	$500,000 x 70% =	350,000
Cost-Depreciation	$510,000 x 20% =	102,000
Income Capitalization	$480,000 x 10% =	48,000
	100% =	$500,000

Weighted Average	$500,000
Simple Average	$496,667

($500,000 + 510,000 + 480,000 ÷ 3 = $496,667

Coffee Break

15 Minutes