

CALCULATION FIELD GUIDE

Real Estate Math Formulas

Formula, variables, units, worked setup, and the exact mistake each calculation is designed to expose.

FORMULAS 24 complete	GEORGIA 4 state setups	METHOD Name, set up, solve
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SOURCE EDITION

PSI Georgia Candidate Information Bulletin, 7/1/2026

The four-pass calculation method

1

Name the output

Dollars, percent, square feet, acres, days, or mills.

2

Select the formula

Write the relationship before touching the calculator.

3

Normalize units

Convert percent to decimal and keep annual or monthly inputs consistent.

4

Sense-check

Estimate sign, scale, and whether the question requires rounding up.

EXAM LENS

Georgia order matters

For property tax, calculate assessed value at 40% before applying millage. For recording taxes, separate sale price from note amount.

Formula set 1

Georgia transfer tax

Formula	Worked setup	Trap control
\$1 first \$1,000 or fraction, then \$0.10 each additional \$100 or fraction	\$285,000 sale price = \$285	Use price less any assumed lien. Round fractions up.

Georgia intangible recording tax

Formula	Worked setup	Trap control
\$1.50 per \$500 or fraction of qualifying long-term note, maximum \$25,000	\$320,000 note = \$960	Use note amount, not price. For notes executed on or after July 1, 2025, some principal must fall due after 62 months.

Assessed value

Formula	Worked setup	Trap control
Fair market value x 40%	$\$300,000 \times .40 = \$120,000$	Apply 40% before millage.

Property tax

Formula	Worked setup	Trap control
Assessed value / 1,000 x mills	$\$120,000 / 1,000 \times 25 = \$3,000$	One mill is \$1 per \$1,000.

Commission

Formula	Worked setup	Trap control
Sale price x commission rate	$\$340,000 \times .06 = \$20,400$	Then apply splits only if asked.

Seller net

Formula	Worked setup	Trap control
Sale price - seller debits	$\$300,000 - \$20,000 = \$280,000$	Classify each debit first.

Formula set 2

Price for target net

Formula	Worked setup	Trap control
$(\text{Desired net} + \text{fixed costs}) / (1 - \text{rate})$	$(\$280,000 + \$4,000) / .94$	Do not simply add 6%.

Buyer cash needed

Formula	Worked setup	Trap control
$\text{Down payment} + \text{debits} - \text{credits} - \text{deposits}$	$\$20,000 + \$4,000 - \$2,500$	Do not count deposit twice.

Loan-to-value

Formula	Worked setup	Trap control
$\text{Loan} / \text{value}$	$\$200,000 / \$250,000 = 80\%$	Use the value specified.

Total debt-to-income

Formula	Worked setup	Trap control
$(\text{Housing} + \text{recurring monthly debt}) / \text{gross monthly income}$	$\$2,625 / \$7,500 = 35\%$	Keep all inputs monthly.

Discount points

Formula	Worked setup	Trap control
$\text{Loan} \times \text{points percentage}$	$\$180,000 \times .01 = \$1,800$	A point is 1% of loan.

Origination fee

Formula	Worked setup	Trap control
$\text{Loan} \times \text{fee percentage}$	$\$240,000 \times .015 = \$3,600$	Use loan, not sale price.

Formula set 3

Equity

Formula	Worked setup	Trap control
Market value - secured debt	$\$360,000 - \$220,000 = \$140,000$	Use current market value.

PITI

Formula	Worked setup	Trap control
Principal + interest + taxes + insurance	$\$1,240 + \$350 + \$160 = \$1,750$	Read whether P and I are combined.

Capitalization rate

Formula	Worked setup	Trap control
NOI / value	$\$48,000 / \$600,000 = 8\%$	NOI, not gross rent.

Net operating income

Formula	Worked setup	Trap control
Effective gross income - operating expenses	$\$108,000 - \$31,000 = \$77,000$	No debt service or depreciation.

Gross rent multiplier

Formula	Worked setup	Trap control
Price / gross rent	$\$240,000 / \$24,000 = 10$	GRM does not use NOI.

Proration

Formula	Worked setup	Trap control
Annual amount / stated days x allocated days	$\$3,600 / 360 \times 90 = \900	Use stated year basis and payment status.

Formula set 4

Acreage

Formula	Worked setup	Trap control
Square feet / 43,560	$435,600 / 43,560 = 10$ acres	Find area first.

Rectangle

Formula	Worked setup	Trap control
Area = $L \times W$; perimeter = $2L + 2W$	$150 \times 200 = 30,000$ sq ft	Area is square units.

Survey acreage

Formula	Worked setup	Trap control
640 acres x each aliquot fraction	NE $\frac{1}{4}$ of SW $\frac{1}{4}$ = 40 acres	Apply every fraction.

Profit or loss

Formula	Worked setup	Trap control
$(\text{New} - \text{original}) / \text{original}$	$(\$250,000 - \$200,000) / \$200,000$	Divide by original.

Straight-line depreciation

Formula	Worked setup	Trap control
Improvement value / stated useful life	$\$240,000 / 30 = \$8,000$	Do not invent useful life.

Appraisal adjustment

Formula	Worked setup	Trap control
Adjust comparable, never subject	Comp superior by \$8,000: subtract	Superior comp subtract; inferior add.

Blank calculation protocol

Use one box per practice problem. The aim is to make the setup visible enough that you can diagnose the error type, not just see a wrong final number.

1. What is the question asking for?

2. Known values and units

3. Formula

4. Substitution

5. Answer with unit

6. Reasonableness check

Sources, scope, and revision record

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[1] **PSI Georgia Candidate Information Bulletin, 7/1/2026**
<https://test-takers.psiexams.com/api/content/bulletin/4672>

[2] **Georgia Real Estate Commission**
<https://grec.state.ga.us>

[3] **Georgia Rules, Chapter 520**
<https://rules.sos.ga.gov/gac/520>

[4] **Georgia DOR Real Estate Transfer Tax**
<https://dor.georgia.gov/real-estate-transfer-tax>

[5] **Georgia DOR Intangible Recording Tax**
<https://dor.georgia.gov/intangible-recording-tax>

Edition control	Value
Primary exam source	PSI Georgia Candidate Information Bulletin, 7/1/2026
Publisher	Pass Georgia Real Estate Exam Prep
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