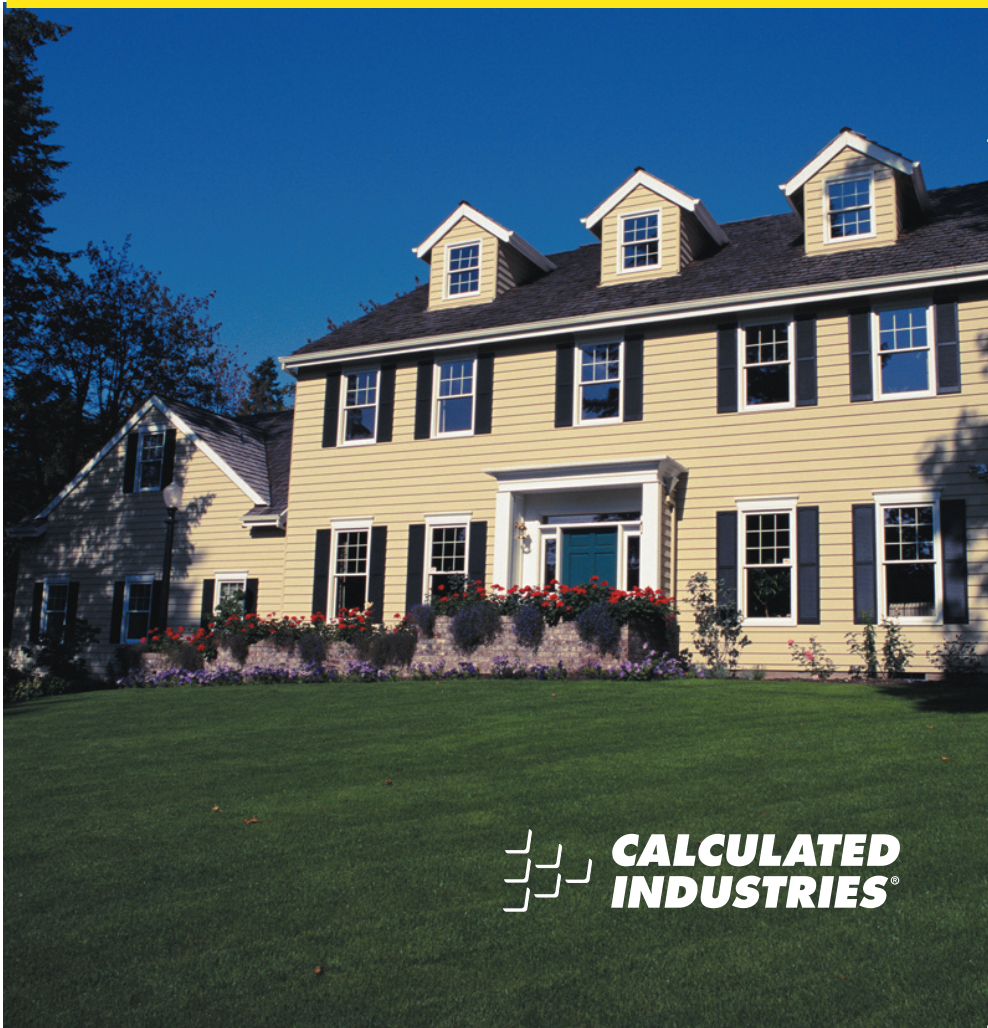


CANADIAN QUALIFIER PLUS® 4x

**ADVANCED REAL ESTATE FINANCE CALCULATOR
with CASH FLOW and BUILT-IN
CANADIAN INTEREST MODE**

Model 3423

Pocket Reference Guide



CANADIAN QUALIFIER PLUS[®] 4X

The *CANADIAN QUALIFIER PLUS 4X* calculator lets you perform mortgage qualifying and financial problems with ease!

Quickly Solve:

- Time-Value-of-Money (TVM) Problems: Find Mortgage Amount, Term, Interest, Payment, Future Value
- P&I payment and Total (PITH) payment
- Sales Price and Down Payment
- Loan-to-Value
- Complete Amortization
- Bi-Weekly Mortgages
- Qualifying Mortgage Amount
- Required Income/Debt
- Effective Interest Rate
- Qualifying Based on Different Ratios
- Cash Flows/Interest Analysis (IRR, NPV, NFV)
- Date Math
- U.S. Loan Problems — TVM problems, APR, Tax/Insurance, PITI Payment, U.S. Qualifying
- *and more!*

TABLE OF CONTENTS

KEY DEFINITIONS	1
Canadian/U.S. Interest Modes	5
Preference Mode.....	6
EXAMPLES.....	6
Basic Math	6
Percentage Calculations	6
Memory Functions.....	7
Delta % - Rate of Appreciation.....	7
Setting Decimal Places	8
Using the Meters and Feet	
Conversion Function	8
Date Function.....	10
EXAMPLES — CANADIAN MODE.....	11
Mortgages and Real Estate	
Mortgages.....	11
Monthly Mortgage Payment	12
Term of a Mortgage.....	12
Mortgage Amount.....	13
Nominal Rate	13
Effective Interest Rate.....	14
Non-Monthly Mortgages and	
Payments Per Year (Pmt/Yr).....	14
Total (PITH) Payment.....	15
Quarterly Payment	16
Mortgage Amount Based on Sales	
Price and % Down Payment.....	16
Sales Price Based on Mortgage	
Amount and % Down Payment.....	17
Finding Loan-to-Value (LTV)	17
Canadian Mortgage Insurance.....	18
Future Value (Appreciation)	18
Amortization (Total Principal/Total	
Interest, Remaining Balance).....	19
Bi-Weekly Mortgages	20

Setting Qualifying Ratios	20
Qualifying Mortgage Amount	21
“Restricted” Qualifying	22
“Unrestricted” Qualifying	23
Qualifying Comparison (Two Ratios at Once)	24
Finding Income Required and Allowable Monthly Debt	25
Cash Flow	26
EXAMPLES — U.S. MODE	28
Monthly Loan Payment	28
Interest-Only Payment (Entry)	28
Setting Tax and Insurance	29
PITI Payment and Interest-Only Payment	30
Qualifying Loan Amount.....	31
Interest-Only Qualifying Loan Amount ..	32
APR and Total Finance Charges, Including Mortgage Insurance	33
APPENDIX	34
Default Settings	34
Repair and Return	35
Warranty	36
FCC Class B	37
Looking For New Ideas	37

KEY DEFINITIONS

Note: This is a short “reference” guide. Please see your large User’s Guide for details.

On/C

On/Clear Key — Turns on power. Pressing once clears the display. Pressing twice clears all temporary values.

Off

Off Key — Turns all power off, clearing all non-permanent registers.

**+ - ×
÷ =**

Arithmetic operation keys.

%

Percent Key — Four-function (+, -, x, ÷) percent key.

**0 – 9
and \square**

Keys used for entering numbers.

:

Colon separator (*for date, Amortization ranges, and qualifying ratios*)

←

Backspace

000

Triple-zero entry key

M+

Memory Function:

- **M+** Adds value on display to Memory
- **Shift M+** Subtracts value on display from Memory
- **Rcl M+** Recalls Memory Total
- **Rcl Rcl** Clears Memory and displays Memory Total

Rcl	Recalls or re-displays a value when followed by a chosen key (e.g., Rcl Int will display current interest value)
Shift	Sets number of displayed decimal places and activates 2nd functions
Shift ✕	Clear All <i>Note: perform with caution as it will clear/reset stored values.</i>
Shift ÷	Payments per year (Default 12, for monthly)
Shift ±	Change sign + or –
Shift ≡	Preference mode (see large User's Guide)
m ▶ ft	Meters to Feet (m ▶ ft) — Converts entered value from Meters to Feet.
Shift m ▶ ft	Feet to Meters (ft ▶ m) — Converts entered value from Feet to Meters.
m² ▶ ft²	Meters² to Feet² (m² ▶ ft²) — Converts entered value from Meters squared to Feet squared.
Shift m² ▶ ft²	Feet² to Meters² (ft² ▶ m²) — Converts entered value from Feet squared to Meters squared.

Shift %	Delta Percent ($\Delta\%$) — Finds the percent change between two values.
Shift 000	Month Offset
Shift Term	Bi-Weekly mortgage
Loan Amt	Mortgage amount or present value
Pmt	P&I, PITI (U.S.), Total (PITH) payment, and interest-only payment (U.S.)
Term	Number of years
Int	Annual interest rate
Shift Int	Effective Interest Rate (Eff%) — Converts value stored as interest to equivalent U.S. rate.
Shift +	Switches between Canadian and U.S. Interest Mode
Shift Loan Amt	Future value
Shift ←	Periodic — Identifies entry as periodic rather than yearly
Price	Sales Price of home
Dn Pmt	Down Payment (<i>entered in percent or dollar amount</i>)
Shift Dn Pmt	Loan-to-Value (LTV)
Amort	Amortization function
Shift Amort	Remaining balance
Qual 1	Qualify based on 32%-40% (Canada)

POCKET REFERENCE GUIDE — 3

Qual 2	Qualify based on 35%-42% (<i>Canada</i>)
Inc	Annual Income
Debt	Long-term, monthly Debt
Tax	Estimated annual property Tax (<i>enter as percent or dol- lar amount</i>)
Shift Tax	Property Insurance — Used for calculating the Total Payment and for Qualifying
Shift Debt	Housing Expense, including monthly heating cost (<i>Canada</i>)
Can MI	Canadian Mortgage Insurance
Cash Flow	Used to enter up to 20 Cash Flows
Shift Cash Flow	Used to enter Frequency
IRR	Internal Rate of Return
Shift IRR	Net Present Value/Net Future Value
Shift 6	Clears Cash Flows

U.S. ONLY KEYS:

- Shift Int** APR (*Annual % Rate*), including mortgage insurance, if entered
- Shift Pmt** Interest-Only Payment
- Shift 9** Estimated *annual* mortgage insurance, if applicable (*enter as percent or dollar amount*)

*Note: The mortgage insurance preference setting only works with U.S. mortgage insurance (**Shift 9**). It does not affect Canadian mortgage insurance (**Cdn MI**).*

- Shift Qual 1** Interest-only qualifying based on 32% - 40% ratios.
- Shift Qual 2** Interest-only qualifying based on 35% - 42% ratios.
- Shift :** Odd-days interest

Canadian / U.S. Interest Modes

Your calculator can easily be switched between Canadian or U.S. Interest Mode by pressing: **Shift +**

U.S. Mode allows:

- Entry/calculation of U.S. interest rates.
- Entry/calculation of U.S. mortgage insurance (**Shift 9**).
- Entry/calculation of interest-only payment.
- APR calculation.
- Interest-Only Qualifying

POCKET REFERENCE GUIDE — 5

Preference Mode

Shift **=** Preference Mode (see *User's Guide for details*)

Allows you to select special settings. To access, first press **Shift** and then the **=** key. Toggle through the various categories by pressing the **=** key. Toggle within each category by pressing the **+** key. To set the preference and exit, press the **On/C** key. To reset the calculator back to its default settings, turn off the calculator, hold down **X** and turn back on (“All Reset” will flash for one second before clearing to zero).

EXAMPLES

Basic Math

This calculator uses standard chaining logic. This means the first value is entered, then an operator, then the second value, then the Equals **=** key to get your answer.

- A. **2 1 6 + 8 4 = 300.00**
B. **2 1 6 - 1 6 = 200.00**
C. **1 2 X 1 2 = 144.00**
D. **1 4 4 ÷ 1 2 = 12.00**

Percentage Calculations

The Percent **%** key is used to find a given percent of a number or for working add-on, discount or division percentage calculations.

- A. **8 0 0 X 2 5 % = 200.00**
B. **2 5 0 + 1 0 % = 275.00**
C. **2 5 - 5 0 % = 12.50**
D. **2 0 0 ÷ 5 0 % = 400.00**

Memory Functions

Pressing the **M+** key adds the displayed value to cumulative Memory. **Shift M+** subtracts the displayed value from cumulative Memory. **Rcl M+** recalls and displays the total value in Memory. **Rcl Rcl** displays and clears the Memory.

KEYSTROKES	DISPLAY
1. 3 5 5 M+ Rcl Rcl	355.00
2. 3 5 5 M+ 2 5 5 M+ 7 4 5 Shift M+ Rcl Rcl	- 135.00

Note: **Shift Rcl M+** may be used to replace any value in Memory with the displayed value.

KEYSTROKES	DISPLAY
1. 3 5 5 M+	355.00
2. 5 0 0 Shift Rcl M+ Rcl Rcl	500.00 500.00

Delta % - Rate of Appreciation

A home originally purchased for \$150,000 sold a year later for \$185,000. What is the rate of appreciation?

KEYSTROKES	DISPLAY
1 5 0 000 Shift %	150,000.00
1 8 5 000 =	23.33

Setting Decimal Places

You can use the **Shift** key to select the number of decimal places displayed. *(Values are rounded using 5/4 rounding.)* You may do this before or after finding an answer. Press **Shift** followed by the number of decimal places you wish to display:

Shift 5	0.00000
Shift 4	0.0000
Shift 3	0.000
Shift 2	0.00 (Default)
Shift 1	0.0
Shift 0	0.
Shift •	Floating Decimal

Note: To return to the standard two decimal place setting, press **Shift** **2**.

Using the Meters and Feet Conversion Functions

Using the **m>ff** and **m²>ff²** keys, you can quickly convert Meters to Feet, Feet to Meters, Square Meters to Square Feet, and Square Feet to Square Meters.

Convert 5 Meters to Feet.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter 5 Meters	5	5.
Find number of Feet	m>ff	FEET 16.40

Convert 20 Feet to Meters.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter 20 Feet	2 0	20.
Find number of Meters	Shift m▶ft	MET 6.096

Convert 10 Square Meters to Square Feet.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter 10 Square Meters	1 0	10.
Find number of Square Feet	m²▶ft²	SQFT 107.64

Convert 20 Square Feet to Square Meters.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter 20 Square Feet	2 0	20.
Find number of Square Meters	Shift m²▶ft²	SQM 1.858

Date Function

Using the **Ⓜ** key, you can quickly solve common real estate date problems: escrow or closing dates, listing expiration dates, and the number of days prepaid interest, etc. You enter a date as follows: Numerical Month **Ⓜ**, Numerical Day **Ⓜ** and Numerical Year. The date function lets you:

- 1) add a number of days to a date to find a future date,
- 2) subtract a number of days from a date to find a past date, and,
- 3) subtract one date from another date to find the number of days in between.

If a 45-day escrow begins January 23, 2007, what is the closing date and day?

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter month	1 Ⓜ	1.-
Enter day	2 3 Ⓜ	1-23-
Enter year	0 7	1-23-07
Add 45 days	+ 4 5 =	FRI 03-09-07

EXAMPLES — CANADIAN MODE

See **page 5** for instructions to return your calculator to Canadian Mode if your calculator does not display the letters “CDN” upon pressing the **Int** key. Or, if your calculator was not reset, press **Shift** **+** until the display reads “INT Cdn.”

Note: For more examples, see your User’s Guide.

Mortgages and Real Estate Mortgages

- The financial functions — **Loan Amt**, **Pmt**, **Term** and — work just like you would say them. For example, to find the payment on a \$100,000 mortgage for 25 years at 10% interest, enter the three known variables and press the key for the unknown fourth variable: **Pmt**.
- Financial values may be entered in any order.
- Values for Term and Interest are permanently stored in Memory.
- The word “run” will appear in the display when calculating interest and other problems.
- Always press **On/C** twice after completing a financial problem to ensure the financial registers are cleared.

(Cont’d)

(Cont'd)

- Once an answer is calculated (for example, a payment) you can change any variable and recompute for a new answer *without* having to re-enter the other data.

Monthly Mortgage Payment

Find the monthly payment on a 25-year mortgage of \$165,000 at 7.75% annual interest.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Mortgage	1 6 5 000 Loan Amt	165,000.00
Enter Term	2 5 Term	25.00
Enter Interest	7 . 7 5 Int	7.75*
Find Payment	Pmt	1,233.08

**Note: When entering or calculating interest in Canadian Mode, the letters "CDN" will appear in the upper left side of the calculator display.*

Term of a Mortgage

How long does it take to pay off a mortgage of \$15,000 at 10% interest if you make payments of \$200 each month?

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Mortgage	1 5 000 Loan Amt	15,000.00
Enter Interest	1 0 Int	10.00
Enter Payment	2 0 0 Pmt	200.00
Find Term/ys	Term	9.71
Periodic Term	Term	116.54

Mortgage Amount

Approximately how much can you borrow if the interest rate is 7.5% on a 25-year mortgage and you can afford \$1,500 in monthly payments? What if the interest rate is lowered to 7%?

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Interest	7 . 5 Int	7.50
Enter Term	2 5 Term	25.00
Enter Payment	1 5 0 0 Pmt	1,500.00
Find Mortgage	Loan Amt	205,042.71
Enter new Interest rate	7 Int	7.00
Find new Mortgage Amount	Loan Amt	214,158.52

Nominal Rate

Find the nominal rate on a mortgage if the mortgage amount is \$155,500, term is 25 years and payment is \$1,150 per month.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Mortgage	1 5 5 5 0 0 Loan Amt	155,500.00
Enter Term	2 5 Term	25.00
Enter Payment	1 1 5 0 Pmt	1,150.00
Find annual Interest	Int	7.63
Find periodic Interest	Int	0.64

– DO NOT CLEAR CALCULATOR –

(Cont'd)

POCKET REFERENCE GUIDE — 13

(Cont'd)

Effective Interest Rate

What is the Effective Interest Rate?

STEPS	KEYSTROKES	DISPLAY
Find Effective Rate (Eff%)	Shift Inf	6.90

Non-Monthly Mortgages and Payments Per Year (Pmt/Yr)

Most mortgages are paid monthly. If paying a non-monthly mortgage, however, the number of payments per year must be changed by entering the number of payments per year, then pressing **Shift** **÷**, as shown in the following exercise:

Enter number of payments per year:

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
	4 Shift ÷ (Pmt/Yr)	4.00

*To recall the currently stored number of payments, press **Rcl** **÷**:*

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
	Rcl ÷ (Pmt/Yr)	4.00

IMPORTANT: *Return your calculator to 12 payments per year (default):*

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
	1 2 Shift ÷ (Pmt/Yr)	12.00

POCKET REFERENCE GUIDE — 14

Total (PITH) Payment

- Term: 25 years
- Interest: 7%
- Sales Price: \$198,000
- Down Payment: 5%
- Property Tax: 1.3%
- Monthly heating expense: \$100

Find the total (PITH) payment:

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Term	2 5 Term	25.00
Enter Interest	7 Int	7.00
Enter Price	1 9 8 000 Price	198,000.00
Down%	5 Dn Pmt	5.00
Set Tax%*	1 . 3 Tax	1.30
Enter heating	1 0 0 Shift Debt	100.00
Find Mortgage	Loan Amt	188,100.00
Find P&I Pmt.	Pmt	1,317.48
Find total, or (PITH) Pmt.	Pmt	1,631.98

Note: Perform the same steps when entering a dollar amount for tax — e.g., \$2,574 (1.3%) tax, enter **2 **5** **7** **4** **Tax**.*

Quarterly Payment

Find the quarterly payment on a ten year, 12%-interest loan of \$15,000.

STEPS	KEYSTROKES	DISPLAY
Set to		
USA Mode	Shift +	INT USA
Clear	On/C On/C	0.00
Set to four payments		
per year	4 Shift ÷	4.00
Enter Loan	1 5 000 Loan Amt	15,000.00
Enter Term	1 0 Term	10.00
Enter Interest	1 2 Int	12.00
Find quarterly		
Payment	Pmt	648.94
Reset to 12 payments		
per year	1 2 Shift ÷	12.00
Reset to Canadian		
Mode	Shift +	INT Cdn

Mortgage Amount Based on Sales Price and Percent Down Payment

Find mortgage amount and dollar down payment if the price is \$235,900 and you're putting 20% down.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Price	2 3 5 9 0 0 Price	235,900.00
Enter Down%	2 0 Dn Pmt	20.00
Find Down\$	Dn Pmt	47,180.00
Find Mortgage	Loan Amt	188,720.00

Sales Price Based on Mortgage Amount and Percent Down Payment

Find sales price if the mortgage amount is \$150,000, down payment 5%, term 25 years and interest rate 7.75%.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Mortgage	1 5 0 000 Loan Amt	150,000.00
Enter Down%	5 Dn Pmt	5.00
Enter Term	2 5 Term	25.00
Enter Interest	7 . 7 5 Int	7.75
Find Payment	Pmt	1,120.98
Find \$Down	Dn Pmt Dn Pmt	7,894.74
Find Price	Price	157,894.74

Finding Loan-to-Value (LTV)

Find the Loan-to-Value if a buyer is putting \$15,000 down on a \$215,500 home. Then find the mortgage amount.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Price	2 1 5 5 0 0 Price	215,500.00
Enter Down\$	1 5 000 Dn Pmt	15,000.00
Find LTV	Shift Dn Pmt	93.04
Find Mortgage	Loan Amt	200,500.00

Canadian Mortgage Insurance

Find the monthly P&I payment on a 25-year, \$150,000 mortgage at 7.5% annual interest with 1.5% mortgage insurance.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Mortgage	2 5 0 000 Loan Amt	250,000.00
Enter Term	2 5 Term	25.00
Enter Interest	7 . 5 Int	7.50
Enter Mortgage Insurance	1 . 5 Cdn MI	1.50
Find Payment	Pmt	1,856.32

Future Value (Appreciation)

What will a \$250,000 home be worth in three years, figuring 6% appreciation?

STEPS	KEYSTROKES	DISPLAY
Set to USA Mode	Shift +	INT USA
Clear	On/C On/C	0.00
Set 1 pmt/yr	1 Shift ÷	1.00
Enter present value	2 5 0 000 Loan Amt	250,000.00
Enter Term	3 Term	3.00
Enter appreciation rate	6 Int	6.00
Find FV	Shift Loan Amt	297,754.00
Return to 12 payments per year	1 2 Shift ÷	12.00
Reset to Canadian Mode	Shift +	INT Cdn

POCKET REFERENCE GUIDE — 18

Amortization (Total Principal / Total Interest, Remaining Balance)

- **Mortgage:** \$175,000
- **Term:** 25 years
- **Interest:** 7.5%

Note: See large User's Guide for more examples.

Find total interest, principal and total payments. Then, find the remaining balance after ten years.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Mortgage	1 7 5 000 Loan Amt	175,000.00
Enter Term	2 5 Term	25.00
Enter Interest	7 . 5 Int	7.50
Find Payment	Pmt	1,280.22
Find # pmts.	Amort	1-300
Find ttl. int.	Amort	209,066.33
Find ttl. prin.	Amort	175,000.00
Find ttl. pmts	Amort	384,066.33
Find balance	1 0 Shift Amort	139,076.82

Note: If Canadian Mortgage Insurance (Cdn MI) is entered, payment, total interest, total principal, total payments, and remaining balance values will be based on the loan amount (including mortgage insurance).

Bi-Weekly Mortgages

- **Mortgage:** \$212,500
- **Term:** 25 years
- **Int:** 7.85%

Find Bi-Weekly term, savings, total cost and Bi-Weekly payment:

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Mortgage	2 1 2 5 0 0 Loan Amt	212,500.00
Enter Term	2 5 Term	25.00
Enter Interest	7 . 8 5 Int	7.85
Find Payment	Pmt	1,601.53
Find Bi-Weekly Term	Shift Term	20.14
Find total interest savings	Term	61,224.88
Find total interest paid	Term	206,735.29
Find total principal	Term	212,500.00
Find total payments	Term	419,235.29
Find Bi-Weekly Payment	Pmt	800.77

Setting Qualifying Ratios

*In Canadian Mode, GDS:TDS (Gross Debt Service/Total Debt Service) ratios of 32% and 40% are permanently stored in the **Qual 1** key, and optional ratios of 35%-42% in the **Qual 2** key. However, you can enter any ratios you desire. For example, enter new qualifying ratios of 30% for GDS and 38% for TDS in **Qual 1**:*

POCKET REFERENCE GUIDE — 20

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Set Ratios	3 0 : 3 8 Qual 1	30.00-38.00

Qualifying Mortgage Amount

- **Buyer's Income:** \$45,000
- **Monthly Debt:** \$250
- **Down Payment:** 25%
- **Property Tax:** 1.5%
- **Monthly heating exp:** \$100
- **Term:** 25 years
- **Interest:** 7.25%
- **GDS/TDS Ratios:** 32% – 40%

Find qualifying mortgage amount, price and total payment:

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Income	4 5 000 Inc	45,000.00
Enter Debt	2 5 0 Debt	250.00
Enter %Down	2 5 DnPmt	25.00
Set Tax%	1 . 5 Tax	1.50
Enter heating expense	1 0 0 Shift Debt	100.00
Enter Term	2 5 Term	25.00
Enter Interest	7 . 2 5 Int	7.25
Enter Ratios	3 2 : 4 0 Qual 1	32.00 – 40.00
Find maximum qualifying Mortgage	Qual 1	124,633.84
Find Price	Price	166,178.45
P&I Payment	Pmt	892.28
Total Payment	Pmt	1,200.00

“Restricted” Qualifying

Buyers who make \$45,000 annually and have \$600 in long-term monthly debt wish to buy a home offered at \$165,000. They will put 15% down. Will they qualify? For what maximum mortgage amount can they qualify? (Use previously stored 7.25% interest and 25-year term, tax rate of 1.5%, monthly heating expense of \$100, and qualifying ratios of 32%:40%).

Note: If you aren't continuing from the previous problem, you'll need to re-enter interest, term, and property tax.

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter annual Income	4 5 000 Inc	45,000.00
Enter monthly Debt	6 0 0 Debt	600.00
Enter monthly heating cost	1 0 0 Shift Debt	100.00
Recall Interest	Rcl Int	7.25
Recall Term	Rcl Term	25.00
Recall property Tax%	Rcl Tax	1.50
Enter Down Payment	1 5 Dn Pmt	15.00
Display Qualifying Ratios	Qual 1	32.00 – 40.00
Find “restricted” Qualifying Mortgage Amount	Qual 1 “run”	92,702.30
Find sales Price	Price	109,061.53

POCKET REFERENCE GUIDE — 22

Find \$ Down Payment **Dn Pmt** **Dn Pmt** 16,359.23
 Find total (PITH) Payment **Pmt** **Pmt** 900.00

— DO NOT CLEAR CALCULATOR —

“Unrestricted” Qualifying

The amount calculated above is the “restricted” mortgage they may qualify for, based on current income and debt. What are the buyer's actual income and debt ratios? What is the “unrestricted” mortgage amount? What side is the “restricted” mortgage based on (income or debt)? What is the total allowable monthly debt?

STEPS	KEYSTROKES	DISPLAY
Find actual Ratios	Qual 1 Qual 1 Qual 1	“run” 24.00 - 40.00
Find “unrestricted” mortgage amount	Qual 1	UNR 127,465.66 LA DEBT*
Find maximum allowable debt	Qual 1	ALW 300.00 MO DEBT**
Clear Tax register	0 Tax	0.00

**The “UNR” in the top of the display and “INC” in the lower right tells you this unrestricted Mortgage Amount is based on the buyer's Income Ratio — therefore, the restricted Qualifying Mortgage Amount is based on the buyer's Debt Ratio.*

(Cont'd)

(Cont'd)

***The restricted Qualifying Mortgage Amount is based on the ratio (income or debt) that limits the buyer the most — in this case it was debt. This means that if the buyer lowers their debt below the maximum allowable of \$300 a month, they would qualify for the larger “unrestricted” mortgage amount.*

Qualifying Comparison (Two Ratios at Once)

- **Buyer's Income:** \$50,000
- **Monthly Debt:** \$125
- **Property Tax:** 1.25%
- **Monthly heating cost
and condo fees:** \$120
- **Down Payment:** 10%
- **Term:** 25 years
- **Interest:** 7.25%

*Qualify this buyer based on both stored
32%:40% and 35%:42% ratios:*

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Income	5 0 000 Inc	50,000.00
Enter Debt	1 2 5 Debt	125.00
Enter Tax%	1 • 2 5 Tax	1.25
Enter monthly Expenses	1 2 0 Shift Debt	120.00
Enter %Down	1 0 Dn Pmt	10.00
Enter Term	2 5 Term	25.00
Enter Interest	7 • 2 5 Int	7.25

POCKET REFERENCE GUIDE — 24

Display Qual 1		
Ratios	Qual 1	32.00 – 40.00
Find Qual 1 maximum Qualifying		
Mortgage	Qual 1	145,893.06
Find Qual 1 P&I		
Payment	Pmt	1,044.48
Find Qual 1 PITH		
Payment	Pmt	1,333.33

— DO NOT CLEAR CALCULATOR —

STEPS	KEYSTROKES	DISPLAY
Display Qual 2		
Ratios	Qual 2	35.00 – 42.00
Find Qual 2 maximum Qualifying		
Mortgage	Qual 2	160,923.25
Find Qual 2 P&I		
Payment	Pmt	1,152.08
Find Qual 2 Total		
Payment	Pmt	1,458.33

Finding Income Required and Allowable Monthly Debt

- Sales Price: \$225,000
- Down%: 35%
- Property Tax: 1.5%
- Heating Expense: \$125
- Term: 25 years
- Interest: 7.5%

Find the income required to finance a \$225,000 home and also find the maximum allowable debt.

(Cont'd)

(Cont'd)

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Interest	7 ◦ 5 Int	7.50
Enter Term	2 5 Term	25.00
Enter Tax%	1 ◦ 5 Tax	1.50
Enter heating	1 2 5 Shift Debt	125.00
Enter Price	2 2 5 000 Price	225,000.00
Enter %Down	3 5 Dn Pmt	35.00
Find \$ Down	Dn Pmt	78,750.00
Find Mortgage	Loan Amt	146,250.00
Display Qualifying Ratios	Qual 1	32.00 – 40.00
Find income required	Qual 1	55,355.59
Find maximum allowable Monthly Debt	Qual 1	369.04
Find P&I Payment	Pmt	1,069.90
Find total	Pmt	1,476.15

Cash Flow

A real estate investor wishes to purchase a home for \$225,000 and rent it out. He'd like a return of 9% and expects to sell it after 5 years for \$275,000. He expects the annual cash flows below. Find the IRR, NPV & NFV.

Annual Cash Flow

Year 1	\$16,000
Year 2	\$16,600
Year 3	\$16,900
Year 4	\$17,200
Year 5	\$17,900+\$275,000 (292,900)

STEPS	KEYSTROKES	DISPLAY
Clear cash flow	Shift 6	“CF Cleared” 0.00
Set 1 payment per year	1 Shift ÷	1.00
Enter initial investment as cash outlay	2 2 5 000 Shift - Cash Flow	C-0 -225,000.00
Enter 1st CF	1 6 000 Cash Flow	C-1 16,000.00
Enter 2nd CF	1 6 6 0 0 Cash Flow	C-2 16,600.00
Enter 3rd CF	1 6 9 0 0 Cash Flow	C-3 16,900.00
Enter 4th CF	1 7 2 0 0 Cash Flow	C-4 17,200.00
Add 5th CF to sale Price	1 7 9 0 0 + 2 7 5 000 = Cash Flow	C-5 292,900.00
Find IRR	IRR	“run” 11.04
Enter desired rate of return and calculate NPV	9 Shift IRR	“run” 19,250.50
Find NFV	IRR	29,619.29
Re-display desired rate of return	IRR	9.00%
Set payment per year to 12	1 2 Shift ÷	12.00
Clear registers*	Shift X	“All Cleared” 0.00

Analysis: This investment would provide an internal rate of return greater than the desired rate of return, making this a positive investment.

*This will clear Cash Flows and reset payments per year to 12 (e.g. monthly) for performing the other examples in this guide.

Note: See Large User’s Guide for more examples.

EXAMPLES — U.S. MODE

IMPORTANT: Your calculator must be in U.S. Mode by pressing **Shift** **+**.

Monthly Loan Payment

Find the monthly payment on a 30-year loan of \$215,000 at 7.5% interest.

STEPS	KEYSTROKES	DISPLAY
Set US Mode	Shift +	INT USA
Clear	On/C On/C	0.00
Enter Loan	2 1 5 000 Loan Amt	215,000.00
Enter Term	3 0 Term	30.00
Enter Interest	7 . 5 Int	7.50
Find Payment	Pmt	1,503.31

Interest – Only Payment (Entry)

How much can you borrow if the interest rate is 7% on a 30-year interest-only mortgage and you can afford to pay \$1,000 each month?

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Interest	7 Int	7.00
Enter Payment	1 000 Shift Pmt	1000.00
Find Loan	Loan Amt	171,428.57

Setting Tax and Insurance

Enter an annual property tax rate of 1.5%, a property/homeowner's insurance rate of .25%, and a mortgage insurance rate of .50%:

STEPS	KEYSTROKES	DISPLAY
Set Tax%*	1 5 Tax	1.50 ANN TAX %
Set homeowner's insurance%	2 5 Shift Tax	0.25 ANN INS %
Set mortgage insurance%	5 0 Shift 9	0.50 ANN M INS %
Recall Tax%	Rcl Tax	1.50
Recall insurance%	Rcl Shift Tax	0.25
Recall mortgage insurance%	Rcl Shift 9	0.50

*Enter dollar values for tax/insurance in the same manner — e.g., to enter \$4,500 estimated annual tax, enter **4** **5** **0** **0** **Tax**.

PITI Payment and Interest-Only Payment

- Term: 30 years
- Interest: 6%
- Sales Price: \$255,000
- Down Payment: 5%
- Property Taxes: 1.3%
- Property Insurance: 0.25%
- Mortgage Insurance: 0.50%
- Monthly Association Dues: \$60

Find the P&I and total payment:

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Term	3 0 Term	30.00
Enter Interest	6 Int	6.00
Enter Price	2 5 5 000 Price	255,000.00
Down%	5 Dn Pmt	5.00
Set Tax%	1 . 3 Tax	1.30
Set ins.%	. 2 5 Shift Tax	0.25
Set MI%	. 5 Shift 9	0.50
Enter Exp.	6 0 Shift Debt	60.00
Find Loan	Loan Amt	242,250.00
Find P&I Pmt.	Pmt	1,452.41
Total Payment	Pmt Pmt	1,942.72

Qualifying Loan Amount

- Buyer's Income: \$100,000
- Monthly Debt: \$550
- Down Payment: 25%
- Property Tax: 1.5%
- Property Insurance: 0.25%
- Mortgage Insurance (not required): 0
- Term: 30 years
- Interest: 6.25%
- Qualifying Ratios: 28% – 36%

Find qualifying loan, price and payment:

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Income	1 0 0 000 Inc	100,000.00
Enter Debt	5 5 0 Debt	550.00
Enter %Down	2 5 DnPmt	25.00
Set Tax%	1 . 5 Tax	1.50
Set ins.%	. 2 5 Shift Tax	0.25
Set MI%	0 Shift 9	0.00
Enter Term	3 0 Term	30.00
Enter Interest	6 . 2 5 Int	6.25
Enter ratios	2 8 : 3 6 Qual 1	28.00 – 36.00
Find maximum qualifying amount	Qual 1	288,008.37
Find Price	Price	384,011.16
Total Payment	Pmt Pmt Pmt	2,333.33

APR and Total Finance Charges, Including Mortgage Insurance

- Loan: \$250,000
- Term: 30 years
- Interest: 6.25%
- Cost: 1.5 points + \$550
- Mortgage Ins./MI: \$1,200/year

STEPS	KEYSTROKES	DISPLAY
Clear	On/C On/C	0.00
Enter Loan	2 5 0 000 Loan Amt	250,000.00
Enter Term	3 0 Term	30.00
Enter Interest	6 . 2 5 Int	6.25
Find P&I Pmt.	Pmt	1,526.33
Enter MI	1 2 0 0 Shift 9	1,200.00

Find Loan Costs:

Recall Loan	Rcl Loan Amt	250,000.00
Find points	x 1 . % =	3,750.00
Add fees and find total	+ 5 5 0 =	4,300.00
Find APR	Shift Int	7.03

These results are with the calculator
set to U.S. Interest Mode.

APPENDIX

Default Settings

Your calculator has the following default settings. Performing a Full Reset (e.g. - turn off calculator, hold down **X** and turn on) will return your calculator to the settings below:

- Canadian Interest Mode
- 12 Periods per Year
- Property Tax/Prop. Insurance (percent and dollar values) = Not Permanently Stored/Clears Upon **Off**
- (U.S. Only) Mortgage Ins. (% and \$ values) = Not Permanently Stored/Clears Upon Double-Press of **On/C**
- Month Offset of January (1)
- Amortization Range = Specified Year (Ent-Ent)
- **Qual 1** Ratios = 32%-40%
- **Qual 2** Ratios = 35%-42%
- Qualifying Ratios Displayed 1st
- End Mode



Repair and Return

Return Guidelines

1. Please read the **Warranty** in this User's Guide to determine if your Calculated Industries product remains under warranty **before** calling or returning any device for evaluation or repairs.
2. If your product won't turn on, check the battery as outlined in the User's Guide.
3. If you need more assistance, please contact.
4. If you believe you need to return your product, please call a representative

Warranty

Warranty Repair Service – U.S.A.

Calculated Industries (“CI”) warrants this product against defects in materials and workmanship for a period of one (1) year from the date of original consumer purchase in the U.S. If a defect exists during the warranty period, CI at its option will either repair (using new or remanufactured parts) or replace (with a new or remanufactured calculator) the product at no charge.

THE WARRANTY WILL NOT APPLY TO THE PRODUCT IF IT HAS BEEN DAMAGED BY MISUSE, ALTERATION, ACCIDENT, IMPROPER HANDLING OR OPERATION, OR IF UNAUTHORIZED REPAIRS ARE ATTEMPTED OR MADE. SOME EXAMPLES OF DAMAGES NOT COVERED BY WARRANTY INCLUDE, BUT ARE NOT LIMITED TO, BATTERY LEAKAGE, BENDING, A “BLACK INK SPOT” OR VISIBLE CRACKING OF THE LCD, WHICH ARE PRESUMED TO BE DAMAGES RESULTING FROM MISUSE OR ABUSE.

To obtain warranty service in the U.S., please go to the web-site.

A repaired or replacement product assumes the remaining warranty of the original product or 90 days, whichever is longer.

Non-Warranty Repair Service – U.S.A.

Non-warranty repair covers service beyond the warranty period, or service requested due to damage resulting from misuse or abuse.

Contact to obtain current product repair information and charges.
Repairs are guaranteed for 90 days.

Repair Service – *Outside the U.S.A.*

To obtain warranty or non-warranty repair service for goods purchased outside the U.S., contact the dealer through which you initially purchased the product. If you cannot reasonably have the product repaired in your area, you may contact to obtain current product repair information and charges, including freight and duties.

Disclaimer

CI MAKES NO WARRANTY OR REPRESENTATION, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCT'S QUALITY, PERFORMANCE, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE. AS A RESULT, THIS PRODUCT, INCLUDING BUT NOT LIMITED TO, KEY-STROKE PROCEDURES, MATHEMATICAL ACCURACY AND PREPROGRAMMED MATERIAL, IS SOLD "AS IS," AND YOU THE PURCHASER ASSUME THE ENTIRE RISK AS TO ITS QUALITY AND PERFORMANCE.

IN NO EVENT WILL CI BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECT IN THE PRODUCT OR ITS DOCUMENTATION.

The warranty, disclaimer, and remedies set forth above are exclusive and replace all others, oral or written, expressed or implied. No CI dealer, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

Some states do not allow the exclusion or limitation of implied warranties or liability for incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights, and you may also have other rights, which vary from state to state.

FCC Class B

This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC rules.



This equipment has been certified to comply with the limits for a Class B computing device, pursuant to Subpart J of Part 15 of FCC rules.

Software copyrighted and licensed to Calculated Industries, Inc. by Real Estate Master Technologies, LLC, 2020.

Pocket Reference Guide copyrighted by Calculated Industries, Inc. © 2020.

Qualifier Plus® and Calculated Industries® are registered trademarks of Calculated Industries, Inc.

ALL RIGHTS RESERVED

CALCULATED INDUSTRIES®

Designed in the USA

Printed in China

5/20



PRG3423E-D (revised-v2)