



# HP-41C

## Real Estate Pac

### Quick Reference Card

#### Compound Interest and Loan Amortization: \$

MINIMUM SIZE: 013

- A Multiplies display by 12 and stores in N.
- B Divides display by 12 and stores in I.
- C Toggles between *BEGIN* and *END*.
- D List values.
- E Clear financial registers.
- A Compute or store N.
- B Compute or store I.
- C Compute or store PV.
- D Compute or store PMT.
- E Compute or store FV.
- J Amortization schedule.

**Internal Rate of Return: IRR**

**Modified Internal Rate of Return: MIRR**

**Net Present Value: NPV**

**MINIMUM SIZE: 025**

- GROUPS?*** Are the cash flows to be entered as groups?
- CF (#)=?*** What is the amount of the cash flow? Use sign convention.
- NO. CFS (#)=?*** How many cash flows?
- CF CHANGES?*** Do you wish to review or change any cash flows?
- SAFE RATE=?*** What is the safe liquid rate of return (in percent)?
- RISK RATE=?*** What is the “risky” rate of return (in percent)?
- DSCNT RATE=?*** What is the discount rate (in percent)?

**Depreciation Schedules: DEPR**

**MINIMUM SIZE: 018**

- DEP AMT=?*** Depreciable amount.
- LIFE=?*** Expected useful life (in years).
- SALVAGE=?*** Salvage value.
- MONS YR 1=?*** Number of months to end of the first year.

<b><i>START PER=?</i></b>	First year for schedule.
<b><i>END PER=?</i></b>	Last year for schedule.
<b><i>DEP TYPE=?</i></b>	<b>SL</b> for straight line. <b>SOYD</b> for sum-of-the-years'-digits. <b>DB</b> for declining balance.
<b><i>DB%=?</i></b>	Declining balance factor (in percent).
<b><i>X-OVER=?</i></b>	Is cross-over to straight line desired?

## **Income Property Analysis: IPA**

**MINIMUM SIZE: 052**

<b><i>PROJ PER=?</i></b>	Projected number of holding periods (in years).
<b><i>APPREC%=?</i></b>	Annual appreciation rate of investment (in percent).
<b><i>GROWTH%=?</i></b>	Annual growth applied to income (in percent).
<b><i>GROSS INC=?</i></b>	Annual gross income.
<b><i>VACANCY%=?</i></b>	Expected vacancy rate (in percent).
<b><i>INCREASE%=?</i></b>	Annual increase applied to operating expenses and capital improvements (in percent).
<b><i>OP EXP=?</i></b>	Expected annual operating expenses (in dollars).
<b><i>1ST MTG=?</i></b>	Amount of first mortgage.

<b><i>INT%=?</i></b>	Annual interest rate of first mortgage (in percent).
<b><i>TERM=?</i></b>	Total term (in years) of first mortgage.
<b><i>PMT=?</i></b>	Level monthly payment of first mortgage.
<b><i>2ND MTG=?</i></b>	Amount of second mortgage.
<b><i>INT%=?</i></b>	Annual interest rate of second mortgage (in percent).
<b><i>TERM=?</i></b>	Total term (in years) of second mortgage.
<b><i>PMT=?</i></b>	Level monthly payment of second mortgage.
<b><i>3RD MTG=?</i></b>	Amount of third mortgage.
<b><i>INT%=?</i></b>	Annual interest rate of third mortgage (in percent).
<b><i>TERM=?</i></b>	Total term (in years) of third mortgage.
<b><i>PMT=?</i></b>	Level monthly payment of third mortgage.
<b><i>BLD DEP=?</i></b>	Depreciable value of building.
<b><i>LIFE=?</i></b>	Life (in years) of building.
<b><i>FACTOR=?</i></b>	Depreciation factor (in percent).

<b><i>PER PROP=?</i></b>	Depreciable value of personal property.
<b><i>LIFE=?</i></b>	Life (in years) of personal property.
<b><i>FACTOR=?</i></b>	Depreciation factor (in percent).
<b><i>PRICE=?</i></b>	Purchase price.
<b><i>BASIS=?</i></b>	Original tax basis.
<b><i>CAP IMP=?</i></b>	Annual capital improvements (in dollars).
<b><i>TAX%=?</i></b>	Marginal income tax rate (as percent).
<b><i>CG TAX%=?</i></b>	Capital gains tax rate (as percent).
<b><i>FULL SCHED?</i></b>	Do you wish a full schedule including equity yield?
<b><i>LIST?</i></b>	Do you wish to list the variables?
<b><i>CHANGE?</i></b>	Do you wish to review or change any values?
<b><i>TRANS CST%=?</i></b>	Transaction costs as a percent of selling price.

## **Graduated Payment Mortgage:** **GPMT**

**MINIMUM SIZE: 022**

***TERM=?*** Total term of mortgage (in years).

<b><i>INTEREST%=?</i></b>	Annual interest rate (in percent).
<b><i>LOAN=?</i></b>	Amount of the loan.
<b><i>NO. PMT/YR=?</i></b>	Number of payments per year.
<b><i>% INCR=?</i></b>	Increase in yearly payment (as percent).
<b><i>YRS GRAD=?</i></b>	Number of years that payments increase.

## **Wrap-Around Mortgage: WRAP**

**MINIMUM SIZE: 035**

<b><i>PV 1ST=?</i></b>	Remaining balance of underlying mortgage.
<b><i>TERM 1ST=?</i></b>	Remaining term of underlying mortgage.
<b><i>PMT 1ST=?</i></b>	Periodic payment of underlying mortgage.
<b><i>INT 1ST=?</i></b>	Periodic interest of underlying mortgage.
<b><i>BAL 1ST=?</i></b>	Balloon payment of underlying mortgage.
<b><i>WRAP AMT=?</i></b>	Amount of wrap-around mortgage.
<b><i>WRAP TERM=?</i></b>	Term of wrap-around mortgage.
<b><i>INT WRAP=?</i></b>	Periodic interest of wrap-around mortgage.
<b><i>BAL WRAP=?</i></b>	Balloon payment of wrap-around mortgage.

***NO. POINTS=?***      Number of points charged.

***YIELD=?***              Desired yield.

## **Home Owner's Equity Analysis:** **EQ**

**MINIMUM SIZE: 021**

***PRICE=?***              Price of home.

***DOWN PMT=?***      Amount of down payment  
(dollars).

***% INT=?***              Mortgage interest rate  
(percent per year).

***TERM=?***              Term of mortgage (in  
years).

***% APPREC=?***      Yearly appreciation (as  
percent).

***MONS YR 1=?***      Number of months in first  
tax year.

***TAXES=?***              Current property taxes.

***% INCREASE=?***    Percent increase or  
decrease in taxes each  
year.

## **The Rent or Buy Decision: RENT**

**MINIMUM SIZE: 029**

***PRICE=?***              Price of house.

***DOWN PMT=?***      Amount of down payment  
(dollars).

***% INT=?***              Mortgage interest rate  
(percent per year).

<b><i>TERM=?</i></b>	Term of mortgage (in years).
<b><i>NO. YEARS=?</i></b>	Number of years to occupy house.
<b><i>% APPREC=?</i></b>	Expected house appreciation (percent annually).
<b><i>% COMM=?</i></b>	Percentage commission charged.
<b><i>CLOSE COST=?</i></b>	Closing costs paid on house purchase.
<b><i>TAX RATE=?</i></b>	Marginal income tax rate (in percent).
<b><i>TAXES=?</i></b>	Monthly property taxes.
<b><i>MAINT=?</i></b>	Monthly maintenance and insurance.
<b><i>RENT=?</i></b>	Monthly rent (alternate residence).
<b><i>BANK % INT=?</i></b>	Annual bank interest rate (as percent).
<b><i>CHANGE?</i></b>	Do you wish to review or change any inputs?



**HEWLETT  
PACKARD**

August 1980