HP 10BII

Financial Calculator

QUICK REFERENCE GUIDE

Basics

Keys:	Display:	Description:
ON	0.00	Turns calculator on.
[orange label]	0.00	Displays shift annunciator (**SHIFT**).
	0.00	Discontinues shift.
123←	12_	Erases last character.
C	0.00	Clears display.
CLΣ	0.00	Clears statistics memory.
C ALL	0.00	Clears all memory.
OFF		Turns calculator off.

Percentages

%	Percent.	MAR	Margin
CST	Cost.	MU	Markup
PRC	Price.		

Add 15% to $17.50.

Keys:	Display:	Description:
17•50+	17.50	Enters number.
15%=	20.13	Adds 15%.

Find the margin if cost is $15.00 and selling price is $22.00.

15CST	15.00	Enters cost.
22PRC	22.00	Enters price.
MAR	31.82	Calculates margin.

If the cost is $20.00 and the markup is 33%, what is the selling price?

20CST	20.00	Enters cost.
33MU	33.00	Enters markup.
PRC	26.60	Calculates price.

Memory Keys

K	Stores a constant operation.
−M	Stores a value in the M register (memory location).
RM	Recalls a value from the M register.
M+	Adds a value to the number stored in the M register.
STO	Stores a value in a numbered register.
RCL	Recalls a value from a numbered register.

Multiply 17, 22, and 25 by 7, storing "× 7" as a constant operation.

Keys:	Display:	Description:
17×7K	7.00	Stores "× 7".
=	119.00	Multiplies 17 × 7.
22=	154.00	Multiplies 22 × 7.
25=	175.00	Multiplies 25 × 7.

Store 519 in register 2, then recall it.

519STO2	519.00	Stores in register 2.
C	0.00	Clears display.
RCL2	519.00	Recalls register 2.

Time Value of Money (TVM)

Enter any four of the five values and solve for the fifth.

A negative sign in the display represents money paid out; money received is positive.

N	Number of payments.
I/YR	Interest per year.
PV	Present value.
PMT	Payment.
FV	Future value.
BEGIN/END	Begin or End mode.
P/YR	Number of payments per year mode

See example on page 6.

If you borrow $14,000 (PV) for 360 months (N) at 10% interest (I/YR), what is the monthly repayment?

Set to End mode. Press BEGIN/END if **BEGIN** annunciator is displayed.

Keys:	Display:	Description:
12P/YR	12.00	Sets payments per year.
360N	360.00	Enters payments.
10I/YR	10.00	Enters interest per year.
14,000PV	14,000.00	Enters present value.
0FV	0.00	Enters future value.
PMT	−122.86	Calculates payment if paid at end of period.

TVM What if…?

It is not necessary to reenter TVM values for each example. Using the values from the previous page, how much can you borrow if you want a payment of $100.00?

Keys:	Display:	Description:
100 +/- PMT	–100.00	Enters new payment amount. (Money paid out is negative.)
PV	11,395.08	Calculates amount you can borrow.

How much can you borrow at a 9.5% interest rate?

9 • 5 I/YR	9.50	Enters new interest rate.
PV	11,892.67	Calculates new present value for $100.00 payment and 9.5% interest.
10 I/YR	10.00	Reenters original interest rate.
14000 PV	14,000.00	Reenters original present value.
PMT	–122.86	Calculates original payment.

Amortization

After calculating a payment using Time Value of Money (TVM), enter the periods to amortize and press AMORT. Then press = to continually cycle through the interest, principal, and balance values (indicated by the **PRIN**, **INT**, and **BAL** annunciators respectively).

Using the TVM example from the previous page, amortize a single payment and then a range of payments.

Amortize the 20th payment of the loan.

Keys:	Display:	Description:
20 INPUT	20.00	Enters period to amortize.
AMORT	20 – 20	Displays period to amortize.
=	–7.25	Displays principal.
=	–115.61	Displays interest. (Money paid out is negative.)
=	13,865.83	Displays balance.

See example on page 9.

Amortize the 1st through 12th loan payments.

1 INPUT 12	12_	Enters range of periods to amortize.
AMORT	1 – 12	Displays range of payments.
=	–77.82	Displays principal.
=	–1,396.50	Displays interest.
=	13,922.18	Displays balance.

Interest Rate Conversion

To convert between nominal and effective interest rates, enter the known rate and the number of periods per year, then solve for the unknown rate.

NOM%	Nominal interest percent.
EFF%	Effective interest percent.
PYR	Periods per year.

See example on page 10.

Find the annual effective interest rate of 10% nominal interest compounded monthly.

Keys:	Display:	Description:
10 NOM%	10.00	Enters nominal rate.
12 PYR	12.00	Enters payments per year.
EFF%	10.47	Calculates annual effective interest.

IRR/YR and NPV

PYR	Number of periods per year (default is 12).
CF$_j$	Cash flows, up to 15 (j is the cash flow *number*).
N$_j$	Number of consecutive times cash flow j occurs.
IRR/YR	Internal rate of return per year.
NPV	Net present value.

See example on page 11.

If you have an initial cash outflow of $40,000, followed by monthly cash inflows of $4,700, $7,000, $7,000, and $23,000, what is the *IRR/YR*? What is the *IRR* per month?

Keys:	Display:	Description:
C ALL	0.00	Clears all memory.
12 PYR	12.00	Sets payments per year.
40000 +/- CF$_j$	–40,000.00	Enters initial outflow.
4700 CF$_j$	4,700.00	Enters first cash flow.
7000 CF$_j$	7,000.00	Enters second cash flow.
2 N$_j$	2.00	Enters number of consecutive times cash flow occurs.
23000 CF$_j$	23,000.00	Enters third cash flow.
IRR/YR	15.96	Calculates *IRR/YR*.
÷ 12 =	1.33	Calculates *IRR* per month.

What is the *NPV* if the discount rate is 10%?

10 I/YR	10.00	Enters *I/YR*.
NPV	622.85	Calculates *NPV*.

Statistics

CLΣ	Clear statistical registers.
number Σ+	Enter one-variable statistical data.
number Σ-	Delete one-variable statistical data.
number1 INPUT number2 Σ+	Enter two-variable statistical data.
number1 INPUT number2 Σ-	Delete two-variable statistical data.
x̄,ȳ SWAP	Means of x and y.
x̄$_w$	Mean of x weighted by y.
Sx,Sy SWAP	Sample standard deviations of x and y.
σx,σy SWAP	Population standard deviations of x and y.
y-value x̂,r SWAP	Estimate of x and correlation coefficient.
x-value ŷ,m	Estimate of y.
0 ŷ,m SWAP	y-intercept and slope.