Amortization Calculations

The HP-12C calculator enables you to calculate the amounts applied towards principal and towards interest from a single loan payment or from several payments. It also calculates the remaining balance of the loan after the payment amortizations are made. To obtain an amortization schedule:

- 1) Press [f] clear [FIN] to clear all the financial registers to 0.
- 2) Enter the number of payments or periods, using [n] or [g] [12x].
- 3) Enter the amount of the loan and press [PV] (The sign of PV should be positive, in accordance with the cash flow sign convention).
- 4) Key in the periodic payment amount and press [CHS] [PMT] to enter it (the sign of PMT must be negative, in accordance with the cash flow sign convention).
- 5) Press [g] [END] or [g] [BEG] to set the PMT mode.
- **6)** Key in the number of payments to be amortized.
- 7) Press [f] [AMORT] to calculate and display the amount of the payments applied towards interest.
- 8) Press [X=Y] to display the amount of the payments applied towards principal.
- 9) To display the number of payments just amortized, press $[R\downarrow][R\downarrow]$.
- 10) To display the remaining balance of the loan, press [RCL] [PV].
- 11) To display the total number of payments amortized, press [RCL] [n].

Example: Amortization Schedule

You can obtain a 25-year mortgage for \$250,000 at 5.25% annual interest. This requires payments of \$1,498.12 (at the end of each month). Find the amounts that would be applied to interest and to the principal from the first and second year's payments.

| Keystrokes | Description |
|-------------------------------|--|
| [f] clear [FIN] | Clears the Financial Registers. |
| Type"5.25" [g] [12÷] | Stores the monthly interest rate percent. Result = 0.44 |
| Type "250000" [PV] | Type the loan amount and store it in "PV" (Cash-In). |
| [g] [END] | Sets the payment mode to END. |
| Type "1498.12" [CHS] [PMT] | Type the monthly payment value, change the sign to negative and store it in " PMT " (Cash-Out). |
| Type"12" [f] [AMORT] | Calculates the amount of the first year payments applied to interest. Result = -13,006.53 |
| [X ⇔ Y] | Shows the amount of the first year payments applied to principal. Result = -4,970.91 |
| [RCL] [PV] | Recall and display the remaining balance after the first year. Result = 245,029.09 |
| [RCL] [n] | Total number of payments amortized. Result = 12 |
| Type"12" [f] [AMORT] | Calculates the amount of the second year payments applied to interest. Result = -12,739.18 |
| [X⇔Y] | Shows the amount of the second year payments applied to principal. Result = -5,238.26 |
| [R↓] [R↓] | Number of payment just amortized. Result = 12 |
| [RCL] [PV] | Recall and display the remaining balance after the second year. Result = 239,790.83 |
| [RCL] [n] | Total number of payments amortized. Result = 24 (2 years) |