## **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 <b>[ n ]</b> or <b>[ g ] [12x]</b> .
3)	Enter the amount of the loan and press <b>[PV] (</b> The sign of PV should be positive, in accordance with the cash flow sign convention).
4)	Key in the periodic payment amount and press <b>[CHS] [PMT]</b> 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" <b>[PV]</b>	Type the loan amount and store it in " <b>PV</b> " (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 " <b>PMT</b> " (Cash-Out).
Type"12" [f] [AMORT]	Calculates the amount of the first year payments applied to inter- est. <b>Result = -13,006.53</b>
[X⇔Y]	Shows the amount of the first year payments applied to principal. <b>Result = -4,970.91</b>
[RCL] [PV]	Recall and display the remaining balance after the first year. Result = 245,029.09
[RCL] [n]	Total number of payments amortized. <b>Result = 12</b>
Type"12" [f] [AMORT]	Calculates the amount of the second year payments applied to in- terest. <b>Result = -12,739.18</b>
[X≒Y]	Shows the amount of the second year payments applied to princi- pal. <b>Result = -5,238.26</b>
[R↓] [R↓]	Number of payment just amortized. Result = 12
[RCL] [PV]	Recall and display the remaining balance after the second year. <b>Result = 239,790.83</b>
[RCL] [n]	Total number of payments amortized. <b>Result = 24</b> (2 years)