Changing Cash Flow Entries:
To change a CF\textsubscript{i} value, key in the new number and press [STO]\textsubscript{j} or [STO]\textsubscript{.j} to store new value in R\textsubscript{j} or R\textsubscript{.j}.
To change the \(N\textsubscript{j}\) value, press \(jN\) new number \(N\textsubscript{j}\).
Remember to reset \(N\) to the number of CF\textsubscript{i} entries (excluding CF\textsubscript{0}), after you review or change cash flows.

PROGRAMMING THE HP-38E
In program mode, only the following functions are active and cannot be recorded:
- \(0\), \(0\) through .99.
- \(1\) through \(9\) and \(0\).
- \(9\) through \(9\) sets calculator to that line of program memory. When a decimal point is pressed before the line number is specified, the \(\text{GTO}\) instruction is not recorded.
- \(9\) clears program memory to all \(0\) instructions, sets calculator to line 00, and relocates 20 storage registers and eight program lines to calculator memory.
- \(9\) specifies number of program lines (P-) and number of storage registers (R-) available within current memory allocation.
- \(x\geq 0\) Conditionals. Tests value in X-register against value in Y-register or 0 as indicated. If true, calculator executes instruction in next line of program memory. If false, calculator skips one line before resuming execution.

ERROR MESSAGES
Error 0: Improper operation involving zero.
Error 1: Storage register overflow.
Error 2: Improper data in statistical registers.
Error 3: Amortization; wrong input to X-register, or IRR; input best guess, press \(\text{RCL} 5\).
Error 4: Improper memory address.
Error 5: Compound interest; bad input.
Error 6: Discounted cash flow analysis; improper input.
Error 7: IRR; no solution exists.
Error 8: Calendar; improper input.
Error 9: Failed self-check (\(\text{STO} \text{ENTER}\)).
Pr Error: Continuous Memory cleared by power failure. (HP-38C only).
The calculator automatically converts one storage register into seven lines of programming, one at a time as you need them, beginning with R₉ and ending with R₇.

**STO** j or **STO**.j stores x value in R₉ or R₇.

**RCL** j or **RCL**.j recalls value from R₉ or R₇.

**STO**+ j, **STO**- j, **STO**× j, **STO**÷ j: x value is added to, subtracted from, multiplied by, or divided into the contents of R₉, and the result is placed in R₇. Storage registers R₁ through R₇ are reserved for storage register arithmetic.

**CLEAR ALL** clears all registers to 0.00. Leaves program memory unchanged.

**SUMMATIONS**

**CLEAR∑** clears statistical registers R₁ through R₈ to 0.00.

**∑** stores accumulations of numbers in the X- and Y-registers in storage registers R₁ through R₈.

**∑−** subtracts same entries from accumulations.

**FINANCIAL INTEREST CALCULATIONS**

**CLEAR FN** clears financial registers to 0.00.

**RCL** followed by a financial key (n, i, pv, pm, fv) recalls that value into the display.

**Rules to Remember:**

1. Given four of the financial values, you can solve for the fifth. Unspecified values maintain a value of zero or last value entered after clearing. Remember, n and i must correspond to the same time frame.
2. The cash flow sign convention: Cash received is positive, cash paid out is negative.
3. Whenever payments pm are involved, be sure to set the payment switch.

**SIMPLE INTEREST**

Store number of days in n, annual interest rate in i, and principal in pv. Pressing **INT** returns:

- INT₃₆₀ to X-register.
- Principal to Y-register; press **XY**.
- INT₃₁₀ to Z-register; press **R₀** **XY**.

**AMORTIZATION**

Input i, pv, and pm. Then key in number of periods to be amortized and press **AMORT**. Returns:

- Accumulated interest to X-register.
- Principal portion of payments to Y-register; press **XY**.
- Remaining balance to pv register.
- Number of periods amortized to n register.

**DISCOUNTED CASH FLOW ANALYSIS**

**CF** stores initial investment in R₀ and sets n register to zero.

**CF** stores CF₁ thru CF₉ in R₁ thru R₉, CF₁₀ thru CF₁₉ in R₁₀ thru R₁₉. Increments n by one.

**N** stores number of times (up to 99) each cash flow occurs.

**Reviewing Cash Flows:**

1. Individual cash flows.
   a. **RCL** CF recalls CF entries in opposite order.
   b. **RCL** j or **RCL**.j recalls cash flow stored in R₉ or R₇.

2. Groups of cash flows.
   a. **RCL** n **RCL** CF recalls entries in opposite order.
   b. **j** n **RCL** CF recalls the jth cash flow.
   c. **j** n **RCL** n **RCL** CF recalls the jth Nj value.