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TI-86 Menu Map

This section presents the TI-86 menus as they appear on the TI-86 keyboard, starting at the top. If a menu has items that display other menus, the other menus follow directly below the main menu. In the program editor, the appearance of some menus changes slightly. The menu map omits user-created-name menus, such as the LIST NAMES and CONS USER menus.

**LINK Menu**

SEND | RECV | SND85

**LINK SEND Menu**

SEND BCKUP Menu

SEND BCKUP Menu

**LINK SEND Selection Screen Menu**

**LINK SND85 Menu**

**GRAPH Menu**

y(x)= | WIND | ZOOM | TRACE | GRAPH | MATH | DRAW | FORM | STGDB | RCGDB | EVAL | STPIC | RCPIC

The link menus are not available in the program editor.

In the program editor, DrEqu is available as a GRAPH menu item.
GRAPH Menu in Pol graphing mode

GRAPH Menu in Param graphing mode

GRAPH Menu in DifEq graphing mode

Equation Editor Menu in Func graphing mode

Equation Editor Menu in Pol graphing mode

Equation Editor Menu in Param graphing mode

Equation Editor Menu in DifEq graphing mode
GRAPH VARS (Graph Variables) Menu  [GRAPH] F1 in the program editor only

<table>
<thead>
<tr>
<th>y(x)</th>
<th>WIND</th>
<th>ZOOM</th>
<th>TRACE</th>
<th>GRAPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>y</td>
<td>x</td>
<td>xt</td>
<td>yt</td>
<td>t</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>y(x)</th>
<th>WIND</th>
<th>ZOOM</th>
<th>TRACE</th>
<th>GRAPH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FnOn</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FnOff</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Axes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Q1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>dTime</td>
</tr>
</tbody>
</table>

GRAPH WIND (Window Variables) Menu  [GRAPH] F2 in the program editor only

<table>
<thead>
<tr>
<th>y(x)</th>
<th>WIND</th>
<th>ZOOM</th>
<th>TRACE</th>
<th>GRAPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>xMin</td>
<td>xMax</td>
<td>xScl</td>
<td>yMin</td>
<td>yMax</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>y(x)</th>
<th>WIND</th>
<th>ZOOM</th>
<th>TRACE</th>
<th>GRAPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>yScl</td>
<td>tMin</td>
<td>tMax</td>
<td>tStep</td>
<td>tMin</td>
</tr>
<tr>
<td></td>
<td>tMax</td>
<td>tStep</td>
<td>tPlot</td>
<td>tPlot</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>dTol</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>xRes</td>
</tr>
</tbody>
</table>

GRAPH ZOOM Menu  [GRAPH] F3

<table>
<thead>
<tr>
<th>y(x)</th>
<th>WIND</th>
<th>ZOOM</th>
<th>TRACE</th>
<th>GRAPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOX</td>
<td>ZIN</td>
<td>ZOUT</td>
<td>ZSTD</td>
<td>ZPREV</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>y(x)</th>
<th>WIND</th>
<th>ZOOM</th>
<th>TRACE</th>
<th>GRAPH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZFIT</td>
<td>ZSQR</td>
<td>ZTRIG</td>
<td>ZDEC</td>
<td>ZDATA</td>
</tr>
<tr>
<td>ZRCL</td>
<td>ZFACT</td>
<td>ZOOMX</td>
<td>ZOOMY</td>
<td>ZINT</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>y(x)</th>
<th>WIND</th>
<th>ZOOM</th>
<th>TRACE</th>
<th>GRAPH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>EStep</td>
</tr>
</tbody>
</table>

GRAPH MATH Menu  [GRAPH] MORE F1 in Func graphing mode

<table>
<thead>
<tr>
<th>MATH</th>
<th>DRAW</th>
<th>FORMT</th>
<th>STGDB</th>
<th>RCGDB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>ROOT</td>
<td>dy/dx</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[X]</td>
<td>FMIN</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>FMAX</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MATH</th>
<th>DRAW</th>
<th>FORMT</th>
<th>STGDB</th>
<th>RCGDB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>INFIC</td>
<td>YICPT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ISECT</td>
<td>DIST</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ARC</td>
<td>TANLN</td>
</tr>
</tbody>
</table>

GRAPH MATH Menu  [GRAPH] MORE F1 in Pol graphing mode

<table>
<thead>
<tr>
<th>MATH</th>
<th>DRAW</th>
<th>FORMT</th>
<th>STGDB</th>
<th>RCGDB</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>DIST</td>
<td>dy/dx</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>dr/dθ</td>
<td>ARC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>TANLN</td>
</tr>
</tbody>
</table>

To display the GRAPH ZOOM menu in DifEq mode, press [GRAPH] MORE F3.

DifEq graphing mode has no GRAPH MATH menu.
Drinv is available only in Func graphing mode.
DrEqu is available only in DifEq graphing mode.
Use the CUSTOM menu to create your own menu (Chapter 2).
CALC Menu  2nd [CALC]

evalF  nDer  der1  der2  fnInt  →  fMin  fMax  arc

MATRX Menu  2nd [MATRX]  Matrix Editor Menu  2nd [MATRX]  [F2] matrixName ENTER

M A T R X  E D I T  M A T H  O P S  C P L X

M A T R X  M A T H  M E N U  2 n d  [ M A T R X ]  [ F 3 ]

M A T R X  O P S  ( O p e r a t i o n s )  M E N U  2 n d  [ M A T R X ]  [ F 4 ]

M A T R X  C P L X  M E N U  2 n d  [ M A T R X ]  [ F 3 ]

V E C T R  M A T H  M E N U  2 n d  [ V E C T R ]  [ F 3 ]

V E C T R  V E C T R  M E N U  2 n d  [ V E C T R ]  [ F 2 ]  vectorName ENTER

N A M E S  E D I T  M A T H  O P S  C P L X

det  r  norm  eigVI  eigVc  →  rnorm  cnorm  LU  cond

dim  Fill  ident  ref  →  aug  rSwap  rAdd  multiR  mRAdd  →  randM

M A T R X  C N J R  2 n d  [ M A T R X ]  [ F 3 ]

N A M E S  E D I T  M A T H  O P S  C P L X

conj  real  imag  abs  angle

cross  unitV  norm  dot
VECTR OPS (Operations) Menu

```
<table>
<thead>
<tr>
<th>NAMES</th>
<th>EDIT</th>
<th>MATH</th>
<th>OPS</th>
<th>CPLX</th>
</tr>
</thead>
<tbody>
<tr>
<td>dim</td>
<td>Fill</td>
<td>→Pol</td>
<td>→Cyl</td>
<td>→Sph</td>
</tr>
</tbody>
</table>
```

VECTR CPLX Menu

```
<table>
<thead>
<tr>
<th>NAMES</th>
<th>EDIT</th>
<th>MATH</th>
<th>OPS</th>
<th>CPLX</th>
</tr>
</thead>
<tbody>
<tr>
<td>conj</td>
<td>real</td>
<td>imag</td>
<td>abs</td>
<td>angle</td>
</tr>
</tbody>
</table>
```

CPLX (Complex Number) Menu

```
<table>
<thead>
<tr>
<th>conj</th>
<th>real</th>
<th>imag</th>
<th>abs</th>
<th>angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>→Rec</td>
<td>→Pol</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

MATH Menu

```
<table>
<thead>
<tr>
<th>NUM</th>
<th>PROB</th>
<th>ANGLE</th>
<th>HYP</th>
<th>MISC</th>
</tr>
</thead>
<tbody>
<tr>
<td>round</td>
<td>iPart</td>
<td>fPart</td>
<td>int</td>
<td>abs</td>
</tr>
</tbody>
</table>
```

MATH NUM (Number) Menu

```
<table>
<thead>
<tr>
<th>NUM</th>
<th>PROB</th>
<th>ANGLE</th>
<th>HYP</th>
<th>MISC</th>
</tr>
</thead>
<tbody>
<tr>
<td>!</td>
<td>nPr</td>
<td>nCr</td>
<td>rand</td>
<td>randBin</td>
</tr>
</tbody>
</table>
```

MATH PROB (Probability) Menu

```
<table>
<thead>
<tr>
<th>NUM</th>
<th>PROB</th>
<th>ANGLE</th>
<th>HYP</th>
<th>MISC</th>
</tr>
</thead>
<tbody>
<tr>
<td>°</td>
<td>r</td>
<td>°</td>
<td>→DMS</td>
<td></td>
</tr>
</tbody>
</table>
```

MATH ANGLE Menu
MATH HYP (Hyperbolic) Menu

NUM PROB ANGLE HYP MISC

\( \text{sinh, cosh, tanh, sinh}^{-1}, \text{cosh}^{-1} \) → \( \text{tanh}^{-1} \)

MATH MISC (Miscellaneous) Menu

NUM PROB ANGLE HYP MISC

\( \text{sum, prod, seq, lcm, gcd, \text{Frac}, \%} \) → \( \text{x\text{\text{\text{\text{x}}}}} \) eval

CONS (Constants) Menu

CONS BLTIN (Built-in Constants) Menu

BLTIN EDIT USER

CONS BLTIN (Built-in Constants) Menu

BLTIN EDIT USER

Na \( \text{k} \) Cc ec Rc \( \text{Gc, g, Me, Mp, Mn} \) → \( \mu_0, \epsilon_0, h, c, u \)

CONV (Conversions) Menu

CONV LNGTH (Length) Menu

LNGTH AREA VOL TIME TEMP

LNGTH AREA VOL TIME TEMP

LNGTH AREA VOL TIME TEMP

CONV AREA Menu

LNGTH AREA VOL TIME TEMP

\( \text{ft}^{2}, \text{m}^{2}, \text{mi}^{2}, \text{km}^{2}, \text{acre} \) → \( \text{in}^{2}, \text{cm}^{2}, \text{yd}^{2}, \text{ha} \)
### CONV VOL (Volume) Menu

<table>
<thead>
<tr>
<th>LNGTH</th>
<th>AREA</th>
<th>VOL</th>
<th>TIME</th>
<th>TEMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>liter</td>
<td>gal</td>
<td>qt</td>
<td>pt</td>
<td>oz</td>
</tr>
<tr>
<td>cm</td>
<td>m</td>
<td>ft</td>
<td>in</td>
<td>tsp</td>
</tr>
<tr>
<td>in²</td>
<td>ft²</td>
<td>m²</td>
<td>cup</td>
<td>ml</td>
</tr>
</tbody>
</table>

### CONV TIME Menu

<table>
<thead>
<tr>
<th>LNGTH</th>
<th>AREA</th>
<th>VOL</th>
<th>TIME</th>
<th>TEMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>sec</td>
<td>mn</td>
<td>hr</td>
<td>day</td>
<td>yr</td>
</tr>
<tr>
<td>week</td>
<td>ms</td>
<td>μs</td>
<td>ns</td>
<td></td>
</tr>
</tbody>
</table>

### CONV TEMP (Temperature) Menu

<table>
<thead>
<tr>
<th>LNGTH</th>
<th>AREA</th>
<th>VOL</th>
<th>TIME</th>
<th>TEMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>°C</td>
<td>°F</td>
<td>°K</td>
<td>°R</td>
<td></td>
</tr>
</tbody>
</table>

### CONV MASS Menu

<table>
<thead>
<tr>
<th>MASS</th>
<th>FORCE</th>
<th>PRESS</th>
<th>ENRGY</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>gm</td>
<td>kg</td>
<td>lb</td>
<td>amu</td>
<td>slug</td>
</tr>
<tr>
<td>ton</td>
<td>mton</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CONV FORCE Menu

<table>
<thead>
<tr>
<th>MASS</th>
<th>FORCE</th>
<th>PRESS</th>
<th>ENRGY</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>dyne</td>
<td>tonf</td>
<td>kgf</td>
<td>lbf</td>
</tr>
</tbody>
</table>

### CONV PRESS (Pressure) Menu

<table>
<thead>
<tr>
<th>MASS</th>
<th>FORCE</th>
<th>PRESS</th>
<th>ENRGY</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>atm</td>
<td>bar</td>
<td>N/m²</td>
<td>lb/in²</td>
<td>mmHg</td>
</tr>
<tr>
<td>mmHg</td>
<td>inHg</td>
<td>inH0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CONV ENRGY (Energy) Menu

<table>
<thead>
<tr>
<th>MASS</th>
<th>FORCE</th>
<th>PRESS</th>
<th>ENRGY</th>
<th>POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>cal</td>
<td>Btu</td>
<td>ft-lb</td>
<td>kw-hr</td>
</tr>
<tr>
<td>eV</td>
<td>erg</td>
<td>l-atm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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CONV POWER Menu 2nd [CONV] MORE F5

CONV SPEED Menu 2nd [CONV] MORE MORE F1

STRNG Menu 2nd [STRNG]

LIST Menu 2nd [LIST] F4

LIST NAMES Menu 2nd [LIST] F3

List Editor Menu 2nd [LIST] F4

LIST OPS (Operations) Menu 2nd [LIST] F5

The (Number) BASE Menu 2nd [BASE]

BASE A-F (Hexadecimal) Menu 2nd [BASE] F1

BASE TYPE Menu 2nd [BASE] F2

BASE CONV (Conversions) Menu 2nd [BASE] F3
### BASE BOOL (Boolean) Menu

<table>
<thead>
<tr>
<th>2nd</th>
<th>BASE</th>
<th>F4</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE</td>
<td>CONV</td>
<td>BOOL</td>
</tr>
<tr>
<td>and</td>
<td>or</td>
<td>xor</td>
</tr>
</tbody>
</table>

### BASE BIT Menu

<table>
<thead>
<tr>
<th>2nd</th>
<th>BASE</th>
<th>F5</th>
</tr>
</thead>
<tbody>
<tr>
<td>TYPE</td>
<td>CONV</td>
<td>BOOL</td>
</tr>
<tr>
<td>rotR</td>
<td>rotL</td>
<td>shftR</td>
</tr>
</tbody>
</table>

### TEST (Relational) Menu


### MEM (Memory) Menu


### MEM DELET (Delete) Menu


### MEM RESET Menu


### MEM RESET Are You Sure? Menu


### STAT (Statistics) Menu


### STAT CALC (Calculations) Menu


*When you press [2nd [STAT] [F3], the list editor and list menu are displayed.*
Appendix

**STAT PLOT Menu**

- **Plot Type Menu**
  - 2nd [STAT] F3 (F1, F2, or F3)
  - 2nd [STAT] F3 (F1, F2, or F3)

**Plot Mark Menu**

- 2nd [STAT] F3 (F1, F2, or F3)
- 2nd [STAT] F3 (F1, F2, or F3)

**STAT DRAW Menu**

- 2nd [STAT] F4

**STAT VARS (Statistical Result Variables) Menu**

- 2nd [STAT] F3

**CHAR (Character) Menu**

- 2nd [CHAR]

**CHAR MISC (Miscellaneous) Menu**

- 2nd [CHAR] F1

akah, ñ, Ç, and ç are valid as the first letter of a variable name.

%, *, and ! can be functions.
Handling a Difficulty

1. If you cannot see anything on the screen, you may need to adjust the contrast (Chapter 1).
   - To darken the screen, press and release 2nd, and then press and hold <.
   - To lighten the screen, press and release 2nd, and then press and hold >.

2. If an error menu is displayed, follow the steps in Chapter 1. Refer to the Error Conditions section of the Appendix (page 393) for details about specific errors, if necessary.

3. If a checkerboard cursor ( ) is displayed, then either you have entered the maximum number of characters in a prompt or memory is full. If memory is full, press 2nd [MEM] F2, select a data type, and then delete some items from memory (Chapter 17).

4. If the busy indicator (dotted line) is displayed in the top-right corner, a graph or program has paused; the TI-86 is waiting for input. Press ENTER to continue or press ON to break.

5. If the calculator does not seem to work at all, be sure the batteries are fresh and that they are installed properly. Refer to battery information in Chapter 1.
Error Conditions

When the TI-86 detects an error, it displays an error message ERROR # type and the error menu. Chapter 1 describes how to correct an error. This section describes possible causes for the errors and examples. To find the proper arguments for a function or instruction, as well as restrictions on those arguments, refer to Chapter 20: A to Z Function and Instruction Reference.

01 OVERFLOW
- You attempted to enter a number that is beyond the calculator’s range.
- You attempted to execute an expression with a result that is beyond the calculator’s range.

02 DIV BY ZERO
- You attempted to divide by zero.
- You attempted a linear regression with a vertical line.

03 SINGULAR MAT
- You attempted to use a singular matrix (determinate = 0) as the argument for \( L^{-1} \), Simult, or LU.
- You attempted a regression with at least one inappropriate list.
- You attempted to use a matrix with repeated eigenvalues as the argument for \( \text{exp}, \cos, \) or \( \sin \).

04 DOMAIN
- You attempted to use an argument that is out of the range of valid values for the function or instruction.
- You attempted a logarithmic or power regression with a \(-x\) or an exponential regression with a \(-y\).

05 INCREMENT
The increment in seq is 0 or has the wrong sign; the increment for a loop is 0.

06 BREAK
You pressed \( ^\text{[Y]} \) to break a program, DRAW instruction, or expression evaluation.

07 SYNTAX
You entered a value; look for misplaced functions, arguments, parentheses, or commas; check the syntax description in the A to Z Reference.
08 NUMBER BASE

♦ You entered an invalid digit in a number base, such as 7b.
♦ You attempted an operation that is not allowed in Bin, Oct, or Hex base mode.

09 MODE

You attempted to store to a window variable of a noncurrent graphing mode, or to use an instruction valid only in noncurrent graphing modes; for example, using DrlInv in Pol, Param, or DifEq graphing mode.

10 DATA TYPE

♦ You entered a value or variable that is an inappropriate data type.
♦ You entered an argument that is an inappropriate data type for a function or an instruction, such as a program name for sortA.
♦ In an editor, you entered a data type that is not allowed; check the appropriate chapter.
♦ You attempted to store data to a protected data type, such as a constant, program, picture, or graph database.
♦ You attempted to store inappropriate data to a restricted built-in variable, such as the list names xStat, yStat, and tStat.

11 ARGUMENT

You attempted to execute a function or instruction without all the arguments.

12 DIM MISMATCH

You attempted to use two or more lists, matrices, or vectors as arguments, but the dimensions of all arguments are not equal, such as {1,2}+{1,2,3}.

13 DIMENSION

♦ You entered an argument with an inappropriate dimension.
♦ You entered a matrix or vector dimension < 1 or > 255 or a noninteger.
♦ You attempted to invert a matrix that is not a square matrix.

14 UNDEFINED

You are referencing a variable that currently is not defined.

15 MEMORY

Memory is insufficient to perform the desired command; you must delete items from memory (Chapter 17) before executing this command.

16 RESERVED

You attempted to use a built-in variable inappropriately.

17 INVALID

You attempted to reference a variable or use a function where it is not valid.
### Errors and Conditions

<table>
<thead>
<tr>
<th>Error Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 ILLEGAL NEST</td>
<td>You attempted to use an invalid function in an argument for <code>seq</code> (or a CALC function; for example, <code>der1(der1(x^3,x),x)</code>).</td>
</tr>
<tr>
<td>19 BOUND</td>
<td>You defined an upper bound that is less than the specified lower bound or a lower bound that is greater than the specified upper bound.</td>
</tr>
<tr>
<td>20 GRAPH WINDOW</td>
<td>One or more window variable values is incompatible with the others for defining the graph screen; for example, you defined <code>xMax &lt; xMin</code>. Window variables are too small or too large to graph correctly; for example, you attempted to zoom out beyond the calculator’s range.</td>
</tr>
<tr>
<td>21 ZOOM</td>
<td>A ZOOM operation resulted in an error; you attempted to define <code>ZBOX</code> with a line.</td>
</tr>
<tr>
<td>22 LABEL</td>
<td>In programming, the <code>Goto</code> instruction label is not defined with a <code>Lbl</code> instruction.</td>
</tr>
<tr>
<td>23 STAT</td>
<td>You attempted a stat calculation with at least one inappropriate list, such as a list with less than two data points. At least one element of a frequency list is &lt; 0. ((xMax - xMin)/xScl \leq 63) must be true when plotting a histogram.</td>
</tr>
<tr>
<td>24 CONVERSION</td>
<td>When converting measurements, the units are incompatible, as in volts to liters.</td>
</tr>
<tr>
<td>25 SOLVER</td>
<td>In the solver editor, the equation does not contain a variable. You attempted to graph with the cursor positioned on bound.</td>
</tr>
<tr>
<td>26 SINGULARITY</td>
<td>In the solver editor, the equation contains a singularity, which is a point at which the function is not defined.</td>
</tr>
<tr>
<td>27 NO SIGN CHNG</td>
<td>The solver did not detect a sign change.</td>
</tr>
<tr>
<td>28 ITERATIONS</td>
<td>The solver has exceeded the maximum permitted number of iterations.</td>
</tr>
<tr>
<td>29 BAD GUESS</td>
<td>The initial guess was outside the specified bounds. The initial guess and several points around the guess are undefined.</td>
</tr>
</tbody>
</table>

Errors 26 through 29 occur during the solving process. Examine a graph of the function or a graph of the variable vs. `left~rt` in the SOLVER. If the equation has a solution, change bounds and/or the initial guess.
30 DIF EQ SETUP
In DifEq graphing mode, equations in the equation editor must be from Q'1 to Q'9 and each must have an associated initial condition from Q11 to Q19.

31 DIF EQ MATH
The step size used by the fitting algorithm has become too small; check the equations and initial values; try a larger value for the window variable difTol; try changing tMin or tMax to examine a different region of the solution.

32 POLY
All coefficients are 0.

33 TOL NOT MET
The algorithm cannot return a result accurate to the requested tolerance.

34 STAT PLOT
You attempted to display a stat plot that references an undefined list.

35 AXES
You attempted to plot a DifEq graph with improper axes set.

36 FLD/ORDER
♦ You attempted to plot a 2nd-order or higher differential equation with SlpFld field format set; change field format or modify the order.
♦ You attempted to plot a 3rd-order or higher differential equation with DirFld field format set; change field format or modify the order.

37 LINK MEMORY
FULL
You attempted to transmit an item with insufficient available memory in the receiving unit; skip the item or cancel the transmission.

38 LINK
TRANSMISSION ERROR
♦ Unable to transmit item; check to see that the cable is firmly connected to both units and the receiving unit is ready to receive data (Chapter 18).
♦ You pressed (to break during transmission.

39 LINK DUPLICATE NAME
You attempted to transmit an item when an item with the same name already exists in the receiving unit.
Equation Operating System (EOS™)

The Equation Operating System (EOS) governs the order of evaluation on the TI-86. Calculations within parentheses are evaluated first, and then EOS evaluates functions within an expression in this order:

1st Functions that are entered after the argument, such as $2^{-1}$, $\frac{1}{x}$, $\sqrt{x}$, and conversions

2nd Powers and roots, such as $2^5$ or $\sqrt[3]{32}$

3rd Single-argument functions that precede the argument, such as $\sqrt{\sin(x)}$ or $\log(x)$

4th Permutations ($nPr$) and combinations ($nCr$)

5th Multiplication, implied multiplication, and division

6th Addition and subtraction

7th Relational functions, such as $> \text{ or } <$

8th Logic operator \text{and}

9th Logic operators \text{or} and \text{xor}

Implied Multiplication

The TI-86 recognizes implied multiplication, so you need not press $\times$ to express multiplication in all cases. For example, the TI-86 interprets $1 \times 2x$ as $(1 \times 2)x$, while the TI-85 evaluates $1/2x$ as $1/(2 \times x)$.

Parentheses

All calculations inside a pair of parentheses are completed first. For example, in the expression $4(1+2)$, EOS evaluates $1+2$ inside the parentheses first, and then multiplies $3$ by $4$. $4 \times (1+2) = 6$
You can omit the close parenthesis ( ) at the end of an expression. All open parenthetical elements are closed automatically at the end of an expression. This is also true for open parenthetical elements that precede the store or display-conversion instructions.

Open parentheses after list names, matrix names, or equation function names are not interpreted as implied multiplication. Arguments that follow these open parentheses are specified list elements, matrix elements, or values for which to solve the equation function.

**TOL (The Tolerance Editor) 2nd MEM F4**

On the TI-86, the computational accuracy of some functions is controlled by the variables tol and δ. The values stored to these variables may affect the speed at which the TI-86 calculates or plots.

The variable tol defines the tolerance in calculating the functions fnInt(, fMin(), fMax(), and arc(), and the GRAPH MATH operations Σf(x), FMIN, FMAX, and ARC (Chapter 6). tol must be a positive value ≥ 1E-12.

The value stored to δ must be a positive real number. δ defines the step size the TI-86 uses to calculate the functions arc in dxNDer mode; nDer; and the operations dy/dx, dr/dθ, dy/dt, dx/dt, INFLC, TANLN, and ARC, all in dxNDer mode (Chapter 6).

To store a value to tol or δ on the home screen or in a program, use [STO]. You can select tol and δ from the CATALOG. Also, you can enter tol directly and select δ from the CHAR GREEK menu.
Computational Accuracy

To maximize accuracy, the TI-86 carries more digits internally than it displays. Values are stored in memory using up to 14 digits with a 3-digit exponent.

- You can store values up to 12 digits long to most window variables. To \textit{xScI}, \textit{yScI}, \textit{tStep}, and \textit{qStep}, you can store values up to 14 digits long.
- When a value is displayed, the displayed value is rounded as specified by the mode setting (Chapter 1), with a maximum of 12 digits and a 3-digit exponent.
- Chapter 4 describes calculations in hexadecimal, octal, and binary number bases.
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Product Support

Customers in the U.S., Canada, Puerto Rico, and the Virgin Islands
For general questions, contact Texas Instruments Customer Support:

phone: 1-800-TI-CARES (1-800-842-2737)
e-mail: ti-cares@ti.com

For technical questions, call the Programming Assistance Group of Customer Support:

phone: 1-972-917-8324

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