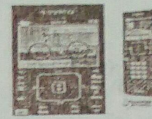
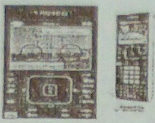


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TI-Nspire TIP SHEET

Calculator Page:

Solve one equation with one unknown:

- Menu
- 3. Algebra
- 1. Numerical Solve
- Type equation, then identify unknown
- ex. $nSolve(2x + 3x = 4x + 15, x)$

Solve System of Linear Equations

- Menu
- 3. Algebra
- 2. Solve System of Linear Equations
- Select number of equations, then enter
- Type each equation in each line as it appears in the problem, then enter

Solving a Quadratic Equation

- Menu
- 3. Algebra
- 3. Polynomial Tools
- 3. Complex Roots of Polynomial
- Type quadratic in standard form, then identify unknown
- ex. $cPolyRoots(x^2 - 3x - 10, x)$

Solve system by Matrix (rref):

- Calculator page
- Type $rref()$
- Press key to the right of 9, select $\begin{bmatrix} \square & \square & \square \\ \square & \square & \square \\ \square & \square & \square \end{bmatrix}$,
rows = number of equations, columns = rows + 1
- In each row, enter coefficient of x, coefficient of y, and number on right of = sign for each equation
- Press Enter and look at matrix at right of screen:
- If the last row is all zeros, the system has **NO SOLUTION** example $\begin{bmatrix} 1 & 2 & 4 \\ 0 & 0 & 0 \end{bmatrix}$
- If the last row is all zeros except for the last value, there are **INFINITELY MANY SOLUTIONS** example $\begin{bmatrix} 1 & 1 & 0 \\ 0 & 0 & 1 \end{bmatrix}$
- If the matrix not including the last column is an identity matrix
- **LAST COLUMN IS X and Y** example $\begin{bmatrix} 1 & 0 & 4 \\ 0 & 1 & -5 \end{bmatrix}$

Graph Page:

Graphing multiple functions

- Tab, will bring the function prompt to enter another function

Table form a function

- Graph a function
- Ctrl t

Put calculator into Standard Form mode on graph page:

- MENU
- 3. Graph Entry/Edit
- 2. Equation
- 1. Line
- 3. $a*x+b*y=c$

Put calculator into Function Mode on graph page:

- MENU
- 3. Graph Entry/Edit
- 1. Function

Enter an inequality on calculator:

- Delete = sign
- Select an inequality sign from menu
- Enter rest of inequality expression

Solve system by graphing using the intersection

- Graph the equations of the system
- MENU
- 6. Analyze Graph
- 4. Intersection
- click left of intersection, then click right of intersection

Find the vertex on a quadratic equation

- Graph the quadratic equation
- MENU
- 6. Analyze Graph
- 2. Minimum or 3. Maximum
- Click left of intersection, then click right of intersection

Find the zero on a quadratic equation

- Graph the quadratic equation
- MENU
- 6. Analyze Graph
- 1. Zero
- Click left of intersection, then click right of intersection

Linear Regression

- Add Lists & Spreadsheet
- Input x on Column A and y on Column B
- Input data (*do not type anything on the equal's row*)
- Press Ctrl then doc
- 5. Add Data & Statistics
- Click to add variable x (*horizontal*)
- Click to add variable y (*vertical*)
- Press Menu
- 4. Analyze
- 6. Regression
- 1. Show linear ($mx + b$)

Graphing in Standard Form $Ax + By = C$

- Add a graph
- Press delete
- 6. Relation
- Type your equation then press Enter
- *Note: When you graph an equation in Standard Form you will not be able to see the Table*

How to get the grid on a Graph page

- Enter your equation
- Press Menu
- 2. View
- 6. Grid
- 3. Lined Grid

Slope from a graph

- Enter your equation
- Press Menu
- 8. Geometry
- 3. Measurement
- 3. Slope
- Click anywhere on the line with the touchpad

Graphing inequalities in any form

- Add a graph
- Press delete then 6 (Relation)
- Type your inequality
- Press Ctrl = for inequality symbols
- Press Enter
- *Note: When you graph an equation in Standard Form you will not be able to see the Table*

Entering an exponential equation in a graph

- Add a graph
- Enter the equation
- To input exponent press ^

Convert to Decimal

- On a calculator page
 - Enter your fraction
 - Press Ctrl then Enter
- OR**
- On a calculator page
 - Enter your fraction
 - Put a decimal dot either on the numerator or denominator

Convert to Fraction

- On a calculator page
- Enter your decimal
- Press Menu
- 2. Number
- 2. Approximate to fraction