Final Exam Reference

College Algebra

# Formulas

## Average Rate of Change

## Approximating Values from a Table

## Linear Functions

## Quadratic Functions

## Quadratic Formula

## Vertex Formula

## Exponential Functions

## Logarithmic Functions

## Change of Base Formula

# Calculator Directions

## Table of Values

1. Rewrite the formula so that the independent variable is and the dependent variable is.
2. Press the Y= button on the calculator and type the formula for Y1.
3. Press 2ND and WINDOW to get to the TBLSET menu.
4. Set the initial value for TblStart and the skip in the independent variable as ΔTbl.
5. Press 2ND and GRAPH to see the table.

## Graphs

1. Rewrite the formula so that the independent variable is and the dependent variable is .
2. Press the Y= button on the calculator and type the formula for Y1.
3. Press the WINDOW button to set the viewing window.
4. Press the GRAPH button to display the graph.

## Window Settings

* Xmin is the smallest -coordinate to display.
* Xmax is the largest -coordinate to display.
* Ymin is the smallest -coordinate to display.
* Ymax is the largest -coordinate to display.
* Xscl is the gap between the hash marks on the -axis.
* Yscl is the gap between the hash marks on the -axis.

## Tracing a Graph

1. Push the TRACE button and use the left and right arrows to change the -coordinate.
2. Push the TRACE button, type a specific -value, and then press ENTER.

## Crossing-Graphs Method

1. Press 2NDand TRACE to get to the CALCULATE menu.
2. Select option 5.
3. Select the first curve. (Usually Y1)
4. Select the second curve. (Usually Y2)
5. Make a guess. (Usually you can just press ENTER.)

## Linear Regression

1. Enter the values of the independent variable in L1 and the corresponding value of the depend variable in L2.
2. Press STAT, then go to the CALC menu.
3. Select option 4: LinReg(ax+b).
4. For a TI-83, press ENTER twice. For a TI-84, go to Calculate and press ENTER.

## Access Regression Equation

1. Press VARS.
2. Select option 5: Statistics…
3. Go to the EQ menu.
4. Select option 1: RegEQ.

## Enter a Matrix

1. Press 2ND and to get to the MATRIX menu.
2. Go right to EDIT.
3. Press the number for the matrix to edit.
4. Enter the dimension of the matrix.
5. Type in the entries of the matrix.
6. When done, press 2ND and MODE to QUIT.

## Row-Reducing a Matrix

1. Press 2ND and to get to the MATRIX menu.
2. Go right to MATH.
3. Go down to B:rref( and press ENTER
4. Press 2ND and to get to the MATRIX menu.
5. Press the number for the matrix to row reduce.
6. Press ) and then ENTER.
7. Press MATH then 1 to convert your answer to fractions.