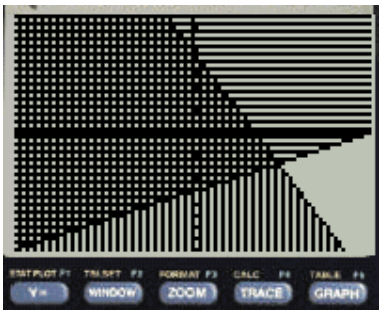
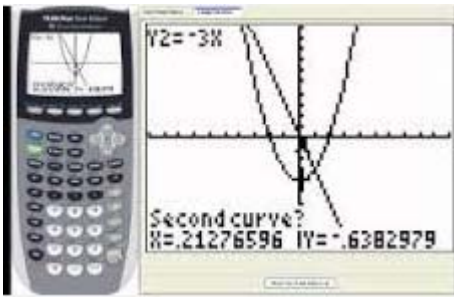
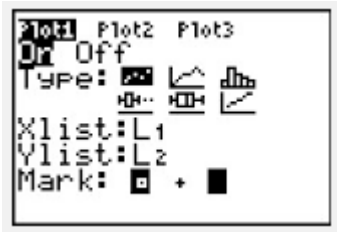
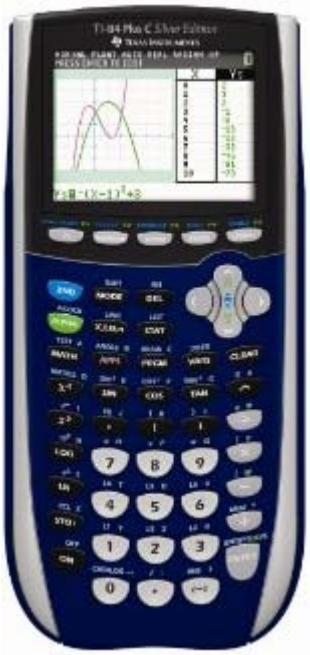




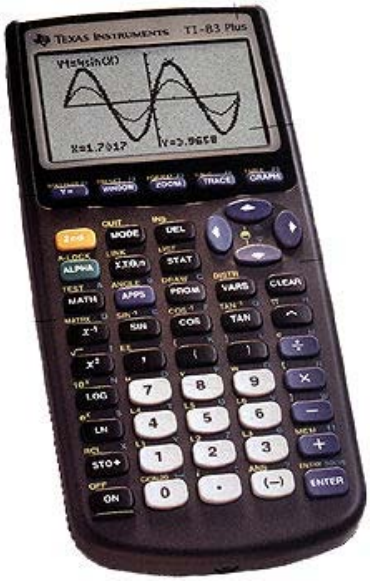
Common Core Algebra 1
Regents Exam Calculator Skills

Name:





This booklet contains most of the TI-83/TI-84 Graphing Calculator skills that you need to know how to do prior to taking the Common Core Algebra 1 Regents



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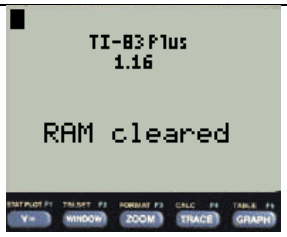
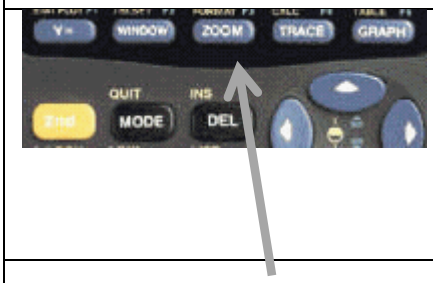
Reset the Calculator

Press [2nd] [+] to go to Memory



Press [7] [1] [2]

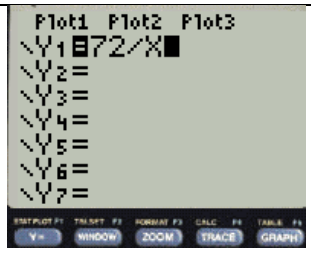
Reset the Graphing Window



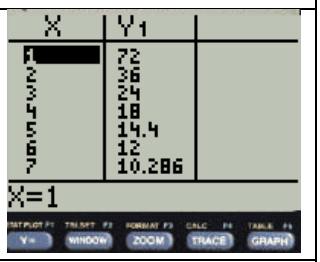
Press [Zoom]

Choose 6:ZStandard
Press [Enter]

Find Factors of a Number



Press [y =] and enter the # divided by x



Press [2nd] [Graph] to go to the Table

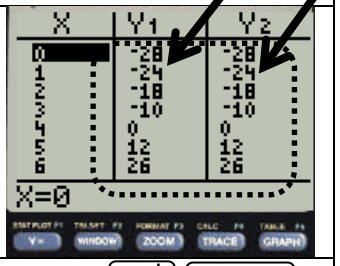
Find GCF(Greatest Common Factor)

Press [2nd] [0] to go to Catalog
gcd is same as GCF

Enter both numbers with a comma in between

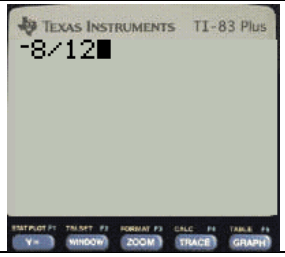
Checking Factors

Press [y =] and enter expression & factors into Y_1 and Y_2

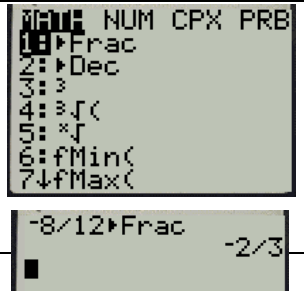


Press [2nd] [Graph] to go to the Table. If all of the outputs from both are identical, then the factors are correct

Reducing Fractions

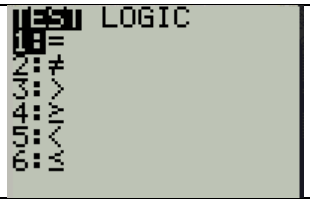
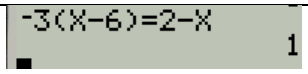


Enter Fraction as -8 divided by 12

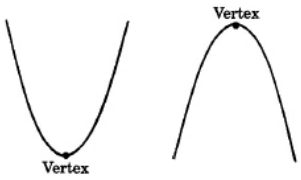


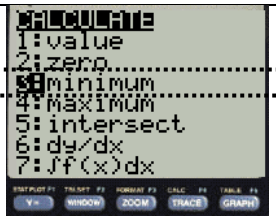
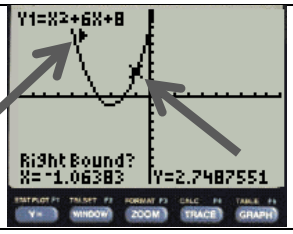
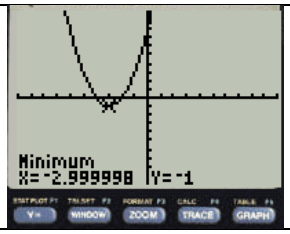
Press Math then Enter Enter

Checking Solutions to Equations and Inequalities

		
Store the value you are checking by pressing [8] [STO>] [Enter]	Enter your equation or inequality by pressing [2nd] [Math] & selecting the correct symbol.	Press [Enter] "1" means True "0" means False

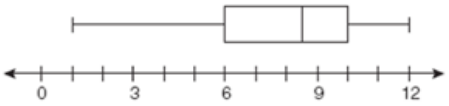
Finding Coordinates of a Vertex

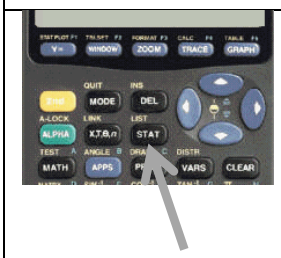
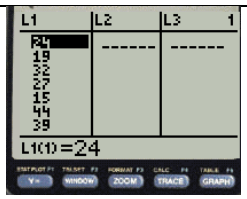
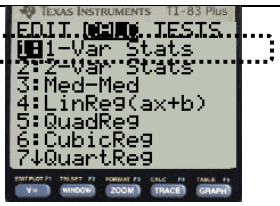
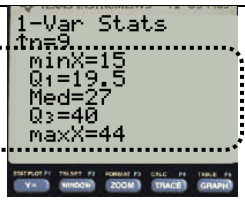


			
Press [y =] and enter Quadratic Function	Press [2nd] [Calc] Choose "minimum" or "maximum"	Choose a "left bound" – a point to the left of the vertex and a "right bound" a point to right of the vertex. Press [Enter]	Coordinates of Vertex **(-3,-1)**

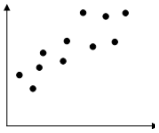
Statistics

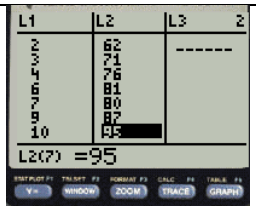
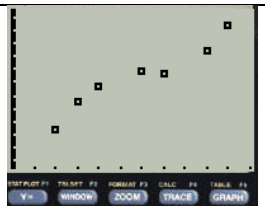
Box-Plot



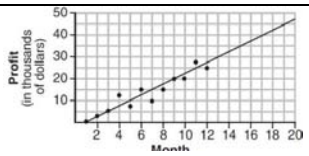
				
Press the **Stat** key	Choose "Edit" by pressing **Enter**	Enter data into L_1	**Stat** **Calc** Choose 1-Var Stats	Scroll down to the bottom

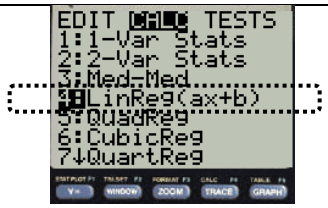
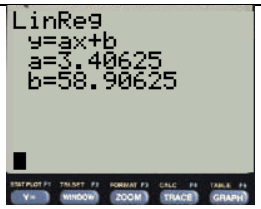
Scatter Plot



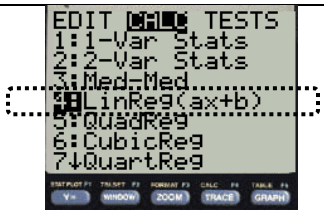
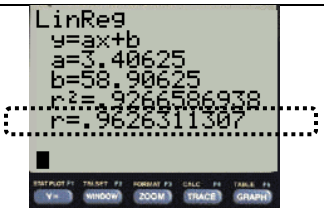
				
Press **Stat** **Enter**	Enter x-values in L_1 and y-values in L_2	**2nd** **y =** to go to StatPlot	Turn Plot1 On	Set the **Window** and the press **Graph**

Equation of Line of Best Fit
Linear Regression

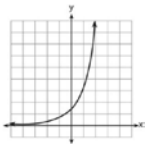


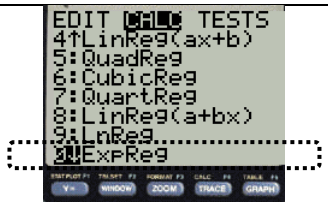
			Equation of the Line of Best Fit is $y = 3.4x + 58.9$
Press **Stat**	Arrow right to Calc Choose 4:LinReg(ax+b)	Press **Enter**	

Correlation Coefficient (r-value) tells you Strong, Moderate or Weak correlation

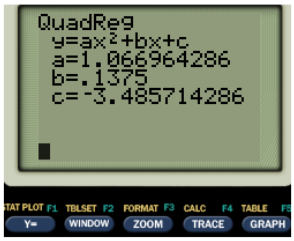
			
Press 2nd Catalog go to DiagnosticOn	Press Enter make sure it says Done	Stat Arrow right to Calc Choose 4:LinReg(ax+b)	The r-value is the Correlation Coefficient

Exponential Regression

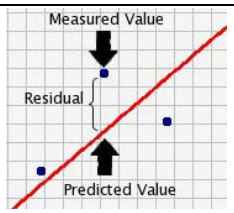


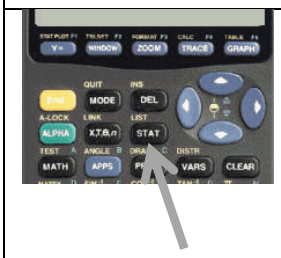
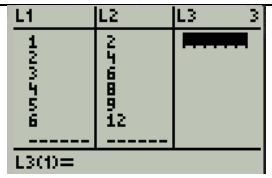
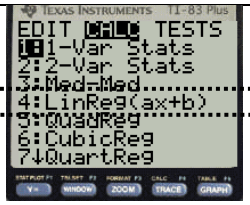
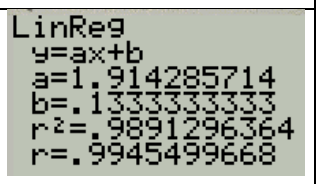
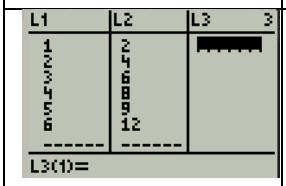
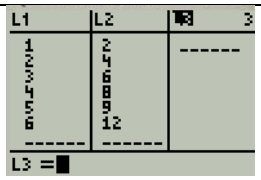
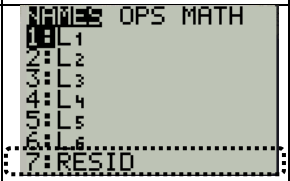
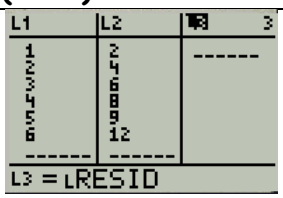
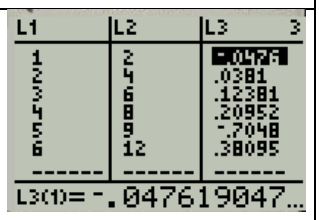
			Exponential Equation is $y = 12.2(1.8)^x$
Press Stat	Arrow right to Calc Choose 0:ExpReg	Press Enter	

Quadratic Regression

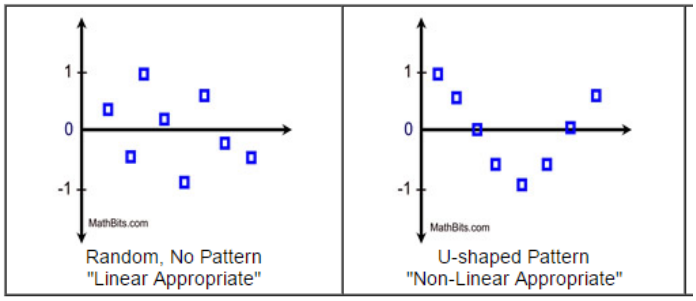
			$y = 1.07x^2 + 0.14x - 3.49$
Press Stat	Arrow right to Calc Choose 5:QuadReg	Press Enter	

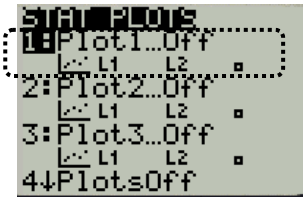
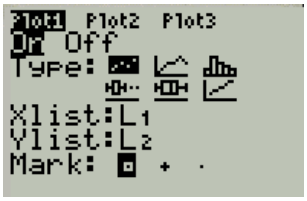
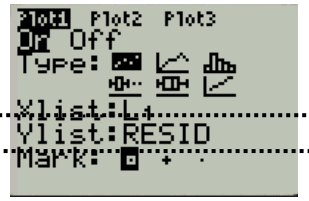
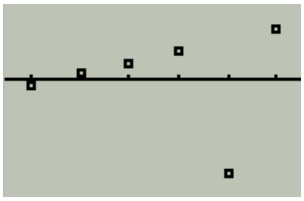
Residuals



				
Press the Stat key	Choose "Edit" by pressing Enter	Enter data into L_1 & L_2	Stat Calc Choose "LinReg (ax+b)"	Press Enter
				
Go back to your lists by pressing Stat & choosing "Edit"	Highlight L_3 and press Enter	Press 2nd Stat and choose "RESID"	Press Enter	The residuals for each point will appear in L_3

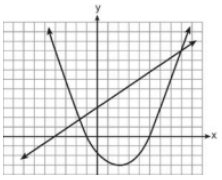
Graphing Residuals

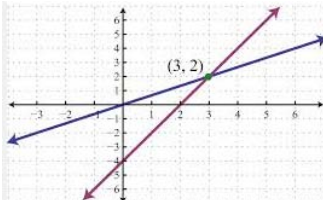


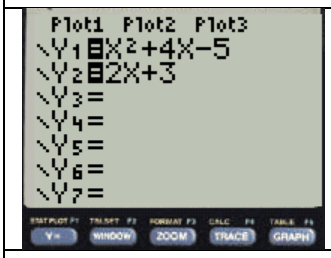
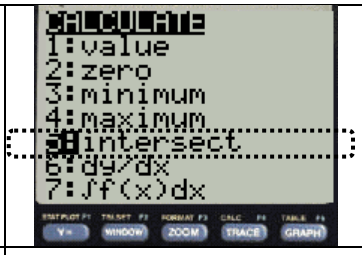
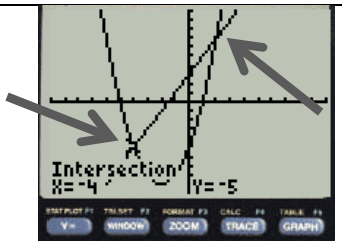
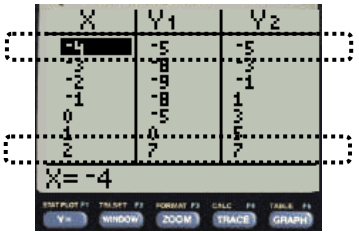
			
2nd Stat Plot Choose "Plot 1" by pressing Enter	Turn on Plot 1 by highlighting "On" and pressing Enter	Change Ylist to "RESID" by pressing 2nd Stat	Press Zoom and choose Option 9 "ZoomStat"

Systems

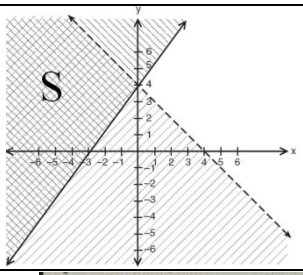
Finding Points of Intersection





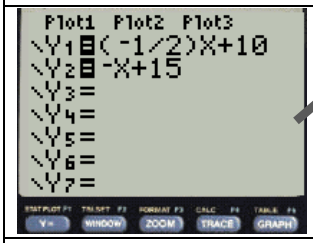
			
Press y = and enter the Functions	Press 2nd Calc Choose "intersection" press Enter	Press Enter 3 times for the point of intersection. Right arrow to 2nd POI and repeat	Press 2nd Graph to look up points of intersection in Table (y-coordinates match)

Graphing Systems of Inequalities



Greater Than

Less Than

			
Press y = and enter the Functions	Press the left arrow until the cursor is to the left of Y_1 and Y_2 Press Enter until the correct shading appears	Press Window Adjust Xmin and Xmax, Ymin and Ymax to match the graph on test	Press Graph