



**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 Examination.

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| **Reset the Graphing Window** |
|  |  |
| **Press Zoom** | **Choose 6:ZStandard****Press Enter** |

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| **Reset the Calculator** |
|  |  |
| **Press 2nd +** **to go to Memory** |  **Press 7 1 2** |

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| **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** |

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| **Find Factors of a Number** |
|  |  |
| **Press y = and enter the # divided by x** | **Press 2nd Graph****to go to the Table** |

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| **Reducing Fractions** |
|  |  |
| **Enter Fraction as** **-8 divided by 12** | **Press Math then Enter Enter** |

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| **Checking Factors** |
|  |  |
| **Press y = and enter expression & factors into**  **and**  | **Press 2nd Graph****to go to the Table.****If all of the outputs from both are identical, then the factors are correct** |

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| **Checking Solutions to Equations and Inequalities** |
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| **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** |

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| **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**

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| **Box-Plot**  |
|  |  |  |  |  |
| **Press the Stat key** | **Choose “Edit” by pressing Enter** | **Enter data into**  |  **Stat Calc****Choose 1-Var Stats** | **Scroll down to the bottom** |



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



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| **Equation of Line of Best Fit** **Linear Regression**  |
|  |  |  | **Equation of the Line of Best Fit is** |
| **Press Stat**  | **Arrow right to Calc****Choose 4:LinReg(ax+b)** | **Press Enter** |  |

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| **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** |



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| **Exponential Regression**  |
|  |  |  | **Exponential Equation is** |
| **Press Stat** | **Arrow right to Calc****Choose 0:ExpReg** | **Press Enter** |  |

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| **Quadratic Regression**  |
|  |  |  | $$y=1.07x^{2}+0.14x-3.49$$ |
| **Press Stat** | **Arrow right to Calc****Choose 5:QuadReg** | **Press Enter** |  |

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| http://www.shodor.org/media/M/T/l/mYzliZjY4ZDc0NjI3YWQ3YWVlM2MzZmUzN2MwOWY.jpg**Residuals**  |
|  |  |  |  |  |
| **Press the Stat key** | **Choose “Edit” by pressing Enter** | **Enter data into** **&**  |  **Stat Calc****Choose “LinReg (ax+b)”** | **Press Enter** |
|  |  |  |  |  |
| **Go back to your lists by pressing Stat & choosing “Edit”** | **Highlight** **and press Enter** | **Press 2nd Stat and choose “RESID”** | **Press Enter** | **The residuals for each point will appear in**  |

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| **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**

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| **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)** |

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|  **Greater Than****Graphing Systems of Inequalities** **Less Than** |
|  |  |  |  |
| **Press y = and enter the Functions** | **Press the left arrow until the cursor is to the left of**  **and** **Press Enter until the correct shading appears** | **Press Window****Adjust Xmin and Xmax, Ymin and Ymax to match the graph on test** | **Press Graph** |