Calculator Functions

- To Enter Ordered Pairs into the calculator to find an equation of a function:
  - STAT; 1: EDIT
    L1: x-coordinates
    L2: y-coodinates
  - STAT;→CALC
    #4: LinReg (for Linear Functions)
    #5: QuadReg (for Quadratic Functions)
    #0: ExpReg (for Exponential Functions)

- To Enter Data into the calculator to find mean, median, standard deviation, and the 5 number summary:
  - STAT; 1: EDIT
    L1: enter the data (order does not matter)
  - STAT;→CALC
    #1: 1-VarStats
    - Mean: $\bar{x}$
    - Standard Deviation: S_x or σ_x
    - 5-Number Summary (scroll down): Min, Q1, Med, Q3, Max
      (Med = median)

- To Enter Equations into the calculator and plot points: Y=
  - : enter equation here (make sure it's perfect; only use negative key if it is first in the equation; use parentheses around fractions)
  - WINDOW: to change the axes (change Xmin, Xmax, Ymin, Ymax to better fit your graph)
  - 2nd WINDOW: to change the table (quick way to jump around the table – change TblStart number)
  - GRAPH: to see the graph of the equation
  - 2nd GRAPH: to see the table

- Other helpful functions: Y= enter equation , GRAPH - to see the graph
  - 2nd TRACE:
    - #1: value (quickly substitutes a number in for x – easy to do with fractions and decimals)
    - #2: zero (finds the x-intercept, zero, root, solution, etc. of the graph – follow the directions, be on the left side of the point; ENTER; be on the right side of the point; ENTER; guess; ENTER)
    - #3: minimum and #4: maximum (finds the min/max of the graph – follow the directions, be on the left side of the point; ENTER; be on the right side of the point; ENTER; guess; ENTER)
    - #5: intersect (finds the intersection point (where two equations are equal) of two graphs *make sure both graphs are in * – follow the directions, first curve; ENTER; second curve; ENTER; guess; ENTER) ** this only finds ONE intersection point, if there is more than one, scroll close to the additional point**

- To enter Cubed Roots or Absolute Value in the calculator:
  - MATH
    #4: for cubed roots
  - MATH ;→ NUM
    #1: for absolute value

- To change a decimal into a fraction:
  - MATH
    #1: FRAC
- To type fraction form ALPHA→Y=
- To see if the graph of a function given only ordered pairs and the decide if it's linear, exponential, quadratic, etc.:
  - STAT; #1: EDIT
    L1: x-coordinates
    L2: y-coodinates
  - 2nd ; #1: Plot1
    Enter so ON is blinking
    Make sure Type: is on the first type, Xlist is L1, Ylist is L2
  - ZOOM; #9: ZoomStat
  - WHEN YOU ARE DONE TURN STAT PLOTS OFF AGAIN ZOOM #6: ZStandard; 2nd → Y=
    #4:PlotsOff Enter

- To find the correlation coefficient for data:
  - 2nd 0 (catalog)
    down to DiagnosticsOn
    Enter until it says Done
  - STAT; Edit
    L1: x-cooridnates
    L2: y-cooridinates
  - STAT; → CALC
    #4: LinReg (for linear functions)
    r: the correlation coefficient
    - Closer to 1 or -1, the stronger the relationship
    - Closer to 0, the weaker the relationship

- To see if two expressions are the same:
  - Type them both into Y= and compare their graphs
    MAKE SURE EVERYTHING IS ON ONE SIDE OF THE EQUALS SIGN