CALCULATOR COMMANDS, CONTENT & FAQs

REMEMBER: Your calculator is reset prior to the exam! It is automatically set to RADIAN mode and DIAGNOSTICS are turned OFF by default. You will want to remedy this immediately upon receiving the calculator after it is reset. Press [mode], press [▼] twice, then press [▶] and then [enter] to put calculator into DEGREE mode (you'll want to use this mode for most every situation except a trig graph where radians are used). To turn diagnostics on, press [2nd] and [0] (Catalog) then [▼] until you find DiagnosticOn, press [enter] twice (it will display DONE).

STATISTICS: To find mean, standard deviations (and variances), and regressions, enter the data into [L1] and if necessary [L2] by pressing [stat] and [enter] (EDIT). Once the data is entered, press [stat] and [▶] (CALC), then select the particular operation needed: 1: 1-Var Stats (for mean, standard deviation and interquartile range), 4: LinReg (ax+b) (for linear regression and/or correlation coefficient), 5: QuadReg (for quadratic regression), 9: LnReg (for logarithmic regression), 0: ExpReg (for exponential regression), or A: PwrReg (power regression). With the updated operating system, you can store the regression into a y-variable by pressing [▼] to Store RegEQ, press [VARS], [▶] (Y-VARS), and [enter] twice.

For 1-variable stats, remember $\bar{x}$ is the mean, σx is the population standard deviation, sx is the sample standard deviation (to only be used when "sample" is indicated), and variance is the square of the standard deviation. To calculate the population variance after you compute 1-var stats, press [VARS], [▼] to 5: Statistics, [enter], [▼] to 4: σx, and then press [x^2].

PROBABILITY: To calculate combinations, permutations, or factorials, enter the value of n, press [MATH], [◀], and then [▼] to either 2: nPr (permutation - order matters); 3: nCr (combination - order doesn't matter), or 4: ! (factorial). Then enter the value or r and press [enter] (for permutations or combinations), or press [enter] to calculate factorial. Binomial probability ($_nC_r \cdot p^r \cdot q^{n-r}$) can be found by using the binompdf feature in DISTR menu (press [2nd] and [VARS], then [▼] to A:

binompdf). This brings up a pop-up menu in the new OS. You will enter in *n*, *p*, and *r* at each line in the menu, and then select Paste and press [enter]. NOTE- this is for calculating an *exact* number for r, not for *at least r* or for *at most r*.

GRAPHING: To enter a function for graphing, press [Y=]. To view a pre-assigned window, press [ZOOM] and select one of the following: 6: ZStandard for basic graphs (-10 to 10 in each direction), ZTrig for trig equations (-360 to 360 in x, -5 to 5 in y), or ZoomStat for regressions. To create a table of values, press [2nd] and [ZOOM] (tblset), enter a starting x-value for TblStart, press [▼] and enter an increment for x to change by in ΔTbl, and then press [2nd] and [graph] to view the table. To find features of functions while graphing, press [2nd] and [trace] (calculate). Options here include 1: Value (enter an x, it calculates the y); 2: Zero (it calculates an x-intercept, you must select a left-bound, right-bound, and guess); 3: minimum (calculates the lowest point, you must select a left-bound, right-bound, and guess); 4: maximum (same idea as minimum); or 5: intersect (calculates the intersection of 2 functions, you must select the 2 functions and a guess)

TRIG: All calculations using Law of Sines/Cosines should be done using DEGREE mode (unless specifically identified as radians). To enter degrees, minutes, and seconds, enter the number of degrees, press [2nd] and [apps] (angle menu) then [enter] (for ° symbol), enter the number of minutes, press [2nd] and [apps] (angle menu) then [▼] and [enter] (for minute symbol ′), then (if necessary) enter the number of seconds, press [alpha] and [+] (for seconds symbol ″). Also in the angle menu is the command to covert a decimal number of degrees to degrees, minutes and seconds. After the decimal is found on the calculator, press [2nd] and [apps] (angle menu) then [▼] to 4: [▶]DMS then press [enter]. To utilize secant, cosecant, or cotangent, you need to first press [1] and [÷], then [cos], [sin], or [tan].