

## CALCULATOR INSTRUCTIONS for APPLIED MATH 30S

### How to reset the calculator?

1. Press 2<sup>nd</sup> +
2. Press 7 (for Reset)
3. Press 1 (for All RAM)
4. Press 2 (for Reset)

### How to enter data on Lists?

1. Press STAT
2. Press 1 (for Edit)
3. Enter data on L1 and L2. Note make sure you have the same number of data on each list. If not, you will have an Error: Dimension Mismatch

### How to turn on Stat Plot?

1. Press 2<sup>nd</sup> Y=
2. Press 1 (for Plot 1)
3. Press Enter to choose ON

### How to change the window setting?

1. Press WINDOW
2. Enter appropriate values for Xmin, Xmax, Ymin and Ymax

### How to determine the regression equation?

1. After you enter data on L1 and L2, turned on the Stat Plot, and changed the window setting you are ready to determine the regression equation.
2. Press STAT
3. Press right arrow key to choose CALC
4. Press 4 if you need a linear regression OR press 5 if you need a quadratic regression
5. Press down arrow key to go to STORE Reg
6. Press VARS, press right arrow key to choose Y-VARS, Press Enter three times
7. Note: Make sure to write the equations

### How to determine the x-intercept? Note: determine the x-intercepts one at a time.

1. Enter equation on  $Y_1$
2. Enter equation  $Y_2 = 0$
3. 2<sup>nd</sup> TRACE (for CALC), Choose 5: Intersect
4. It will ask you, "First curve?" press left or right arrow key to move closer to the x-intercept, and then press ENTER.
5. It will ask you, "Second curve?" Press ENTER.
6. Press ENTER again

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### How to determine the y-intercept?

1. Enter equation on  $Y_1$
2. 2<sup>nd</sup> TRACE (for CALC), Choose 1: Value
3. It will show  $X =$  at the bottom of the screen.
4. Type in zero for x value, and then press ENTER. (Note: the x-value is 0 for y-intercept)

### How to determine the vertex

1. Enter equation on  $Y_1$
2. 2<sup>nd</sup> TRACE (for CALC), Choose 3: Minimum or Choose 4: Maximum depending on the direction of the opening
3. It will ask you, "Left bound?" use the left or right arrow key to move to the left of the vertex. Press Enter.
4. It will ask you; "Right bound?" use the left or right arrow key to move to the right of the vertex. Press Enter.
5. It will say, "Guess?" on the screen, just press Enter.
6. The coordinates of the vertex will be at the bottom of the screen.

### How to determine y-value?

1. Enter your equation on  $Y_1$ .
2. 2<sup>nd</sup> TRACE (for CALC), Choose 1: Value
3. Type in whatever x-value you are given,
4. Then press Enter
5. The answer will be at the bottom of the screen.

### How to determine the x-value?

1. Enter your equation on  $Y_1$ .
2. Enter another equation,  $Y_2 =$  given y-value in the question
3. 2<sup>nd</sup> TRACE (for CALC), Choose 5: Intersect
4. It will ask you, "First curve?" press left or right arrow key to move closer to the intersection, and then press ENTER.
5. It will ask you, "Second curve? Press ENTER.
6. Press ENTER again
7. It will show the coordinate of the point of intersection at the bottom of the screen.