# Sinusoidal Applications - Calculator Guidelines

| | Steps/Guidelines | TI-83 or TI-84 | TI-Nspire |
|---|---|---|---|
| | | | ***Do NOT use "Scratchpad" - use "Documents" *** |
| → | correct **MODE** - degrees or radians? | **MODE** > RADIAN or DEGREE | Settings > Settings > General > Radian > make default |
| → | adjust the **WINDOW** | WINDOW  (adjust accordingly) | menu > Window/Zoom > Window Settings (adjust accordingly) |
| → | enter the **equation** | **Y=** (enter appropriate equation) | f(x) = (enter appropriate equation) - use "x" in radian AND degree mode! |
| → | to **evaluate** a function (given an x-value) | **2ND** > **CALC** > Value > (type in value) **ENTER** | CTRL > +page > add calculator > type f1(value) |
| → | to find a **maximum** or **minimum** | **2ND** > **CALC** > Min or Max > left bound? (move cursor to left of point) **ENTER**, right bound? (move cursor to right of point) **ENTER**, guess? (move cursor close to point) **ENTER** | Menu > Analyze Graph > Min or Max (move line to left of point) ENTER, (move line to right of point) ENTER |
| → | to find a **zero** (**x-intercept**) | **2ND** > **CALC** > Zero > left bound? (move cursor to left of intercept) **ENTER**, right bound? (move cursor to right of intercept) **ENTER**, guess? (move cursor close to intercept) **ENTER** | Menu > Analyze Graph > Zero (move line to left of intercept) ENTER, (move line to right of intercept) ENTER |
| → | to **solve an equation** for x (often time) given a y-value f(x) | Graph another function $y_2$ = (horizontal) **2ND** > **CALC** > Intersect > (move cursor to $y_1$) **ENTER**, (move cursor to y2) **ENTER** > (move cursor close to intersection) **ENTER** | Menu > Analyze Graph > Intersection (move line to left of intersection) ENTER, (move line to right of intersection) ENTER |