

## Calculator Appendix Q

## Special marking of graphed functions Comparing lines and parabolas

Multiple functions can be simultaneously graphed by pressing the $\mathbf{Y}=$ button. Enter the first function beside $\mathbf{Y}_{\mathbf{1}}=$ and others beside $\mathbf{Y}_{2}=$, etc.

For the sake of illustration, the functions $y=x$ and $y=3 x+4$ are shown here.

After entering the functions, graph them by pressing the GRAPH button.

The two graphed functions will appear as shown here. (If not, press ZOOM | 6:
ZStandard ... the zoom button is the middle button in the picture above.)


Although it is easy to tell which graph belongs to which function in this particular example, sometimes it is not this easy. This is especially true when there are several functions intertwined or when deep zooms allow only tiny portions to be viewed.

In the present example we will show how to specially mark one of the functions so there will be no doubt concerning its identity on the graph screen.

We will mark the steeper of the two lines ( $\mathbf{Y} \mathbf{2}=3 \mathrm{x}+4$ ) by moving with the UP and/or DOWN ARROWS until the cursor is on the $\mathbf{Y} \mathbf{2}$ function.


At this point we want to move the cursor to the left of Y2. Do this by pressing the LEFT ARROW twice. Press ENTER and the icon to the left of $\mathbf{Y} 2$ will turn into a heavy mark. (Repeated pressing of ENTER will toggle through other options.)

Now press the GRAPH button and the Y2 function will be observed to be displayed with a heavier graph so as to associate it with the proper function.


Similarly, two parabolas can be graphed and compared. For $\mathbf{Y} \mathbf{1}$, enter $\mathrm{x}^{2}$ and for $\mathbf{Y} \mathbf{2}$, enter $.1(x+5)^{2}-5$.

Mark the Y2 function so it will display as a heavy graph as discussed above. Press the GRAPH button to produce the display shown here.


