

# Using a Table for More than One Function ClassicView

## Objectives

- Interpret a table with more than one function
- Use an Ask table to see y-values for two or more functions
- Use an Automatic table to see y-values for two or more functions

## Interpret a table with more than one function

When we input two or more functions in the  $y=$  menu, the table displays the x-values only once.

**Example 1:** What ordered pairs are represented by this table?

x	$y_1 = 3x + 4$	$y_2 = -3x + 4$
1	7	1
-3	-5	13

(1,7) and (-3,-5) are ordered pairs on the graph of  $y_1 = 3x + 4$ . (The first and second columns)

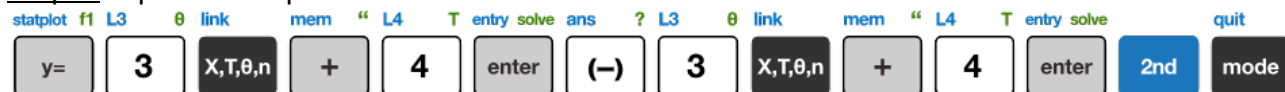
(1,1) and (-3,13) are ordered pairs on the graph of  $y_2 = -3x + 4$ . (The first and third columns)

## Use an Ask table to see y-values for two or more functions

**Example 2:** Create one table for  $y_1 = 3x + 4$  and  $y_2 = -3x + 4$  using the ASK setup.

x	$y_1 = 3x + 4$	$y_2 = -3x + 4$
-34		
46		
-12		
0		
1003		

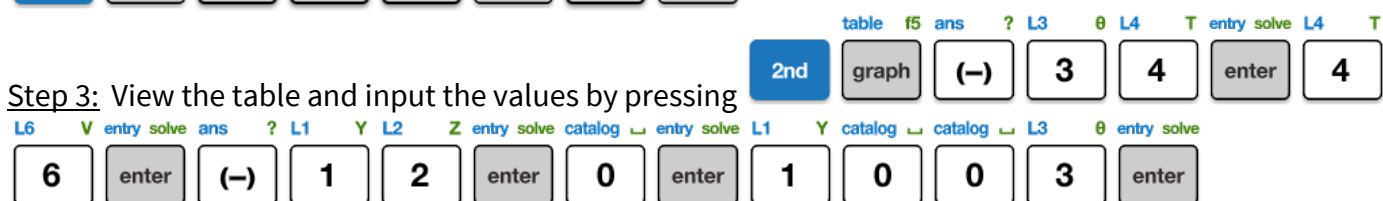
Step 1: Input both equations into the  $Y=$  menu.



Step 2: Set up the table. TblStart and  $\Delta$ Tbl can be any values. Set Indpt to Ask and Depend as Auto.



Step 3: View the table and input the values by pressing



Plot1 Plot2 Plot3	TABLE SETUP	X	Y1	Y2
\Y1=3X+4	TblStart=-1	-34	-98	106
\Y2=-3X+4	ΔTbl=1	46	142	-134
\Y3=	Indent: Auto	-12	-32	40
\Y4=	Depend: Auto	0	4	4
\Y5=		1003	3013	-3005
\Y6=				
\Y7=		X=		

Answer:

x	$y_1 = 3x + 4$	$y_2 = -3x + 4$
-34	-98	106
46	142	-134
-12	-32	40
0	4	4
1003	3013	-3005

$(-34, -98)$ ,  $(46, 142)$ ,  $(-12, -32)$ ,  $(0, 4)$  and  $(1003, 3013)$  are ordered pairs on the graph of  $y_1 = 3x + 4$ .

$(-34, 106)$ ,  $(46, -134)$ ,  $(-12, 40)$ ,  $(0, 4)$  and  $(1003, -3005)$  are ordered pairs on the graph of  $y_2 = -3x + 4$ .

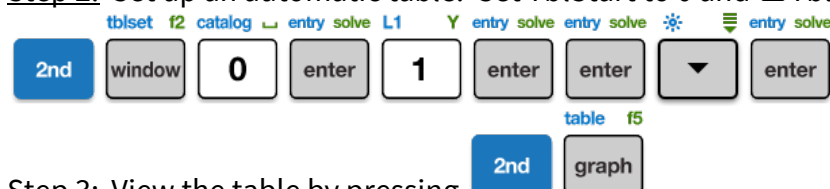
## Use an automatic table to see y-values for two or more functions

**Example 3:** Create one table for  $y_1 = 3x + 4$  and  $y_2 = -3x + 4$  using the AUTO setup.

x	$y_1 = 3x + 4$	$y_2 = -3x + 4$
0		
1		
2		
3		
4		

**Step 1:** Input both equations into the Y= menu, same as in Example 2.

**Step 2:** Set up an automatic table. Set TblStart to 0 and  $\Delta$ Tbl to 1. Set Indpt to Auto and Depend as Auto.



**Step 3:** View the table by pressing

Plot1 Plot2 Plot3	TABLE SETUP	X	Y1	Y2
\Y1=3X+4	TblStart=0	0	4	4
\Y2=-3X+4	ΔTbl=1	1	7	1
\Y3=	Indent: Auto	2	10	-2
\Y4=	Depend: Auto	3	13	-5
\Y5=		4	16	-8
\Y6=		5	19	-11
\Y7=		6	22	-14
		Press + for ΔTbl		

The ordered pairs for  $y_1$  in this table are  $(0, 7)$ ,  $(1, 5)$ ,  $(2, 3)$ ,  $(3, 1)$ ,  $(4, -1)$ ,  $(5, -3)$ , and  $(6, -5)$ . The ordered pairs for  $y_2$  in this table are  $(0, -4)$ ,  $(1, -1)$ ,  $(2, 2)$ ,  $(3, 5)$ ,  $(4, 8)$ ,  $(5, 11)$ , and  $(6, 14)$ .