



GRAPH OF FUNCTIONS

November 2013 P2 Q(9) (c) (ii)

(ii) Hence, or otherwise, complete the table below for $y = x + \frac{1}{x}$.

x	-2	-1.75	-1.5	-1.25	-1	-0.75	-0.5	-0.25
y					-2			

[1]

Solution:

Press **MENU** and then **9** to enter into table mode

Type in the equation as shown in the screen below (**x** **+** **1/x**)

The Casio 991Ex can make table for two functions simultaneously since in this case we do not have any other function so we can just press **≡** to ignore the other function $g(x)$

Type the start, end and step values and press enter to get the table values (coordinates)

$f(x) = x + \frac{1}{x}$	Table Range Start: -2 End : -0.25 Step : 0.25	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 5%;"></td> <td style="width: 15%;">x</td> <td style="width: 15%;">$f(x)$</td> </tr> <tr> <td>1</td> <td>-2</td> <td>-2.5</td> </tr> <tr> <td>2</td> <td>-1.75</td> <td>-2.321</td> </tr> <tr> <td>3</td> <td>-1.5</td> <td>-2.166</td> </tr> <tr> <td>4</td> <td>-1.25</td> <td>-2.05</td> </tr> </table>		x	$f(x)$	1	-2	-2.5	2	-1.75	-2.321	3	-1.5	-2.166	4	-1.25	-2.05
	x	$f(x)$															
1	-2	-2.5															
2	-1.75	-2.321															
3	-1.5	-2.166															
4	-1.25	-2.05															

November 2014 P2 Q(10) (a)

10 The table below is for $y = x^2 - 4x - 1$.

x	-2	-1	0	1	2	3	4	5	6
y		4	-1	-4	-5	-4	-1	4	

(a) Complete the table.

[1]

Solution

Press **MENU** and then **9** to enter into table mode

Type in the equation as shown in the screen below

The Casio 991Ex can make table for two functions simultaneously since in this case we do not have any other function so we can just press **≡** to ignore the other function $g(x)$

Type the start, end and step values and press enter to get the table values (coordinates)

$f(x) = x^2 - 4x - 1$	Table Range Start: -2 End : 6 Step : 1	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 5%;"></td> <td style="width: 15%;">x</td> <td style="width: 15%;">$f(x)$</td> </tr> <tr> <td>1</td> <td>-2</td> <td>11</td> </tr> <tr> <td>2</td> <td>-1</td> <td>4</td> </tr> <tr> <td>3</td> <td>0</td> <td>-1</td> </tr> <tr> <td>4</td> <td>1</td> <td>-4</td> </tr> </table>		x	$f(x)$	1	-2	11	2	-1	4	3	0	-1	4	1	-4
	x	$f(x)$															
1	-2	11															
2	-1	4															
3	0	-1															
4	1	-4															





June 2014 P2 Q(10) (a)

(b) The table below shows some values of x and the corresponding values of L , correct to one decimal place where appropriate, for $L = 2x + \frac{100}{x}$.

x	2	4	6	8	10	12	14	16	18	20
L	54	33	28.7	28.5	30	32.3	35.1	38.3		

Complete the table. [2]

Solution

Press **MENU** and then **9** to enter into table mode
 Type in the equation as shown in the screen below
 The Casio 991Ex can make table for two functions simultaneously since in this case we do not have any other function so we can just press **≡** to ignore the other function $g(x)$
 Type the start, end and step values and press enter to get the table values (coordinates)

$f(x) = 2x + \frac{100}{x}$	Table Range Start: 2 End : 20 Step : 2	<table border="1"> <tr> <td>x</td> <td>$f(x)$</td> </tr> <tr> <td>7</td> <td>35.142</td> </tr> <tr> <td>8</td> <td>38.25</td> </tr> <tr> <td>9</td> <td>41.556</td> </tr> <tr> <td>10</td> <td>45</td> </tr> </table>	x	$f(x)$	7	35.142	8	38.25	9	41.556	10	45
x	$f(x)$											
7	35.142											
8	38.25											
9	41.556											
10	45											

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