

## Chapter 3 / Example 11a

# Intersecting lines

Use your GDC to find the point of intersection for each pair of lines:

a  $y = -3x + 1$  and  $y = -5x + 3$

Press **MENU** 5 **GRAPH** **2/F6** to display the equation entry screen.

Type  $-3x + 1$  and press **EXE** to enter the first equation as Y1.

Type  $-5x + 3$  and press **EXE** to enter the second equation as Y2.

Graph Func : Y=  
Y1:  $-3x+1$  [—]  
Y2:  $-5x+3$  [—]  
Y3: [—]  
Y4: [—]  
Y5: [—]  
Y6: [—]  
[SELECT] [DELETE] [TYPE] [TOOL] [MODIFY] [DRAW]

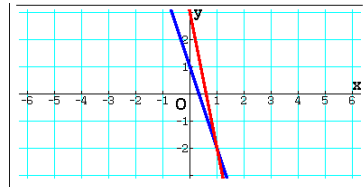
Press **F6** DRAW to display the graph screen

The GDC now displays both straight-line graphs:

$$Y1 = -3x + 1$$

$$Y2 = -5x + 3$$

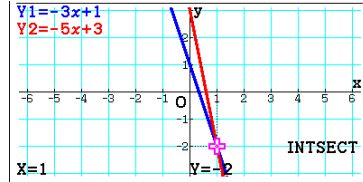
The default axes are  $-6.3 \leq x \leq 6.3$  and  $-3.1 \leq y \leq 3.1$ .



To find the intersection press **F5** G-Solv **F5** Intersect.

Press **EXE** to display the coordinates.

Press **EXIT** to leave G-Solv mode and **F6** DRAW to display the graph screen again.



The GDC displays the intersection of the two straight lines at the point  $(1, -2)$ .

The solution is  $(1, -2)$ .

