

Chapter 3 / Example 11a

Intersecting lines

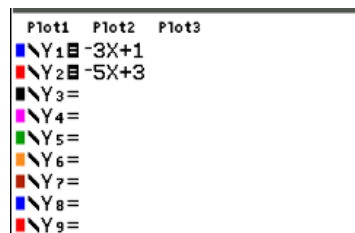
Use your GDC to find the point of intersection for each pair of lines:

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

Press $[f1]$ $[y=]$ to display the equation entry screen.

Type $-3x + 1$ and press $[enter]$ to enter the first equation as Y_1 .

Type $-5x + 3$ and press $[enter]$ to enter the second equation as Y_2 .



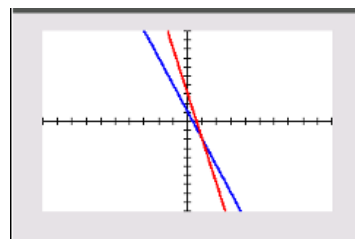
Press $[f5]$ $[graph]$ to display the graph screen

The GDC now displays both straight-line graphs:

$$Y_1 = -3x + 1$$

$$Y_2 = -5x + 3$$

The default axes are $-10 \leq x \leq 10$ and $-10 \leq y \leq 10$.

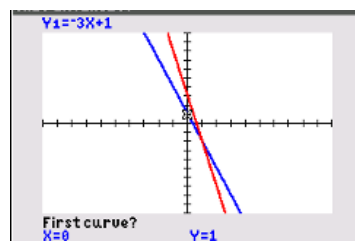


Press $[2nd]$ $[f4]$ $[calc]$ 5:intersect

To find the intersection you need to choose the two lines that intersect.

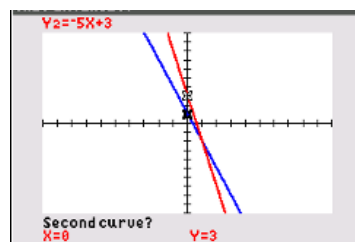
The GDC shows a cross on one of the lines and 'First curve?'.

Press $[enter]$.



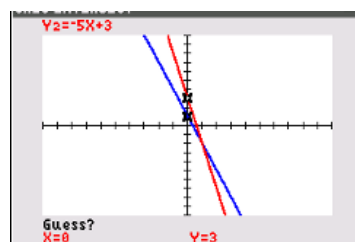
The GDC shows a cross on the other line and 'Second curve?'.

Press $[enter]$.



The GDC requires an initial guess for the position of the intersection. Choose the default position.

Press $[enter]$.



Chapter 3 / **Example 11a**

Intersecting lines

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

The solution is $(1, -2)$

