

The solution set:

The set of all possible solutions of the system.

Equivalent systems:

Two linear systems with the same solution set.

STRATEGY FOR SOLVING A SYSTEM:

Replace one system with an equivalent system that is easier to solve.

EXAMPLE

$$\begin{array}{rcl} x_1 - 2x_2 = -1 & & x_1 - 2x_2 = -1 \\ -x_1 + 3x_2 = 3 & \rightarrow & x_2 = 2 \end{array}$$

$$\begin{array}{rcl} & & x_1 = 3 \\ & \rightarrow & x_2 = 2 \end{array}$$