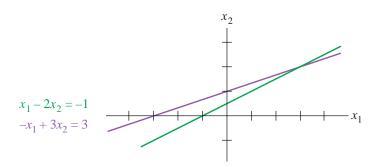
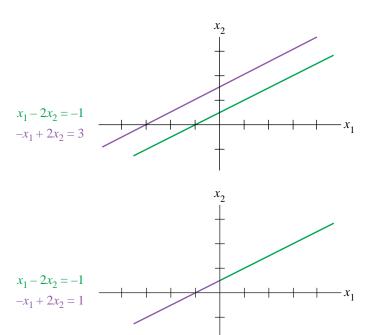
EXAMPLE Two equations in two variables:



A solution is a pair (x_1, x_2) that lies on both lines.

Two other possibilities:



Basic Fact: A system of linear equations has either

(i) exactly one solution; or

consistent

(ii) infinitely many solutions; or

consistent

(iii) no solution.

inconsistent