CONCEPT MAP

FORM 4

SYSTEMS OF EQUATIONS

Solving Simultaneous Equations (Involving a Linear Equation and a Non-Linear Equation)

For example,
$3x + 2y = 1$ (Linear),
$3x^2 - 5x - y^2 - 3y = 0$ (Non-linear)

Solving Systems of Linear Equations in Three Variables

① Choose two equations and use them to to eliminate one variable.

② Choose one more pair of equations and use them to eliminate the **same** variable.

③ Use the two pairs of equations formed at the two initial steps to eliminate either one of the two variables that are left.

④ Solve the last equation formed to determine the value of the first variable.

⑤ Find the value of the second variable. Do this using either one of the equations formed at steps ① and ② and the value of the variable determined at step ④.

⑥ Find the value of the third variable using either one of the original equations and the values of the two variables determined at steps ④ and ⑤.

Solving Problems in Daily Real-Life Situations using Simultaneous Equations

Solving Problems in Daily Real-Life Situations using System of Equations