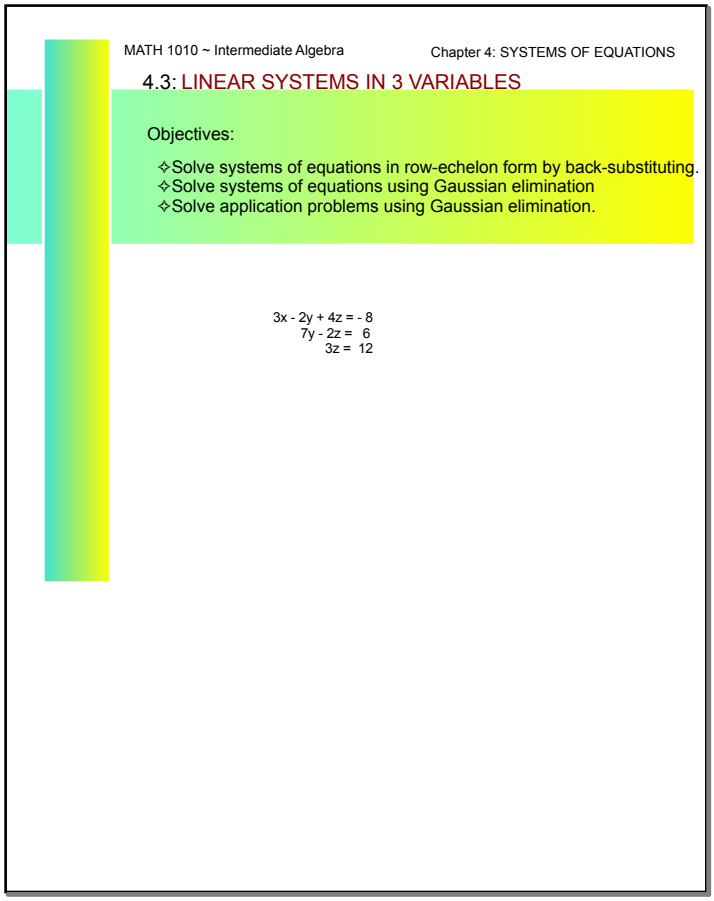



Row echelon form for a system of equations:

$$\begin{aligned} x - 2y + 3z &= 9 \\ y + 2z &= 5 \\ z &= 3 \end{aligned}$$

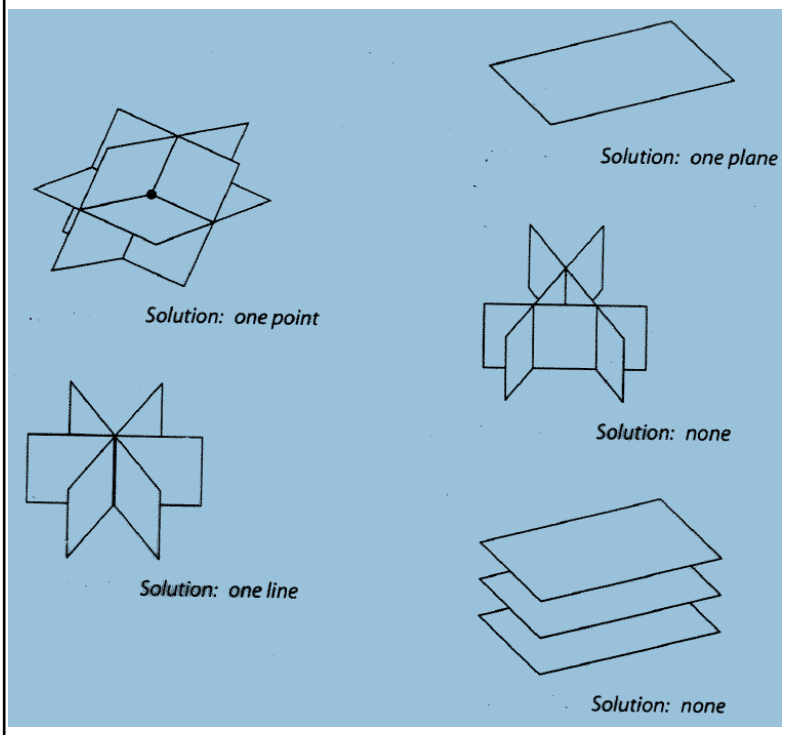
Three Elementary Row Operations:

1. Interchange two rows.
2. Multiply one row by a non-zero constant.
3. Add a multiple of one row to another row.

Use these operations to get this system of equations in row echelon form.

$$\begin{aligned} x - 2y + 3z &= 5 \\ -x + y + 5z &= 4 \\ 2x - 3z &= 0 \end{aligned}$$

Possible solutions to a system of equations in three variables:




① EXAMPLE

Solve this system.

$$\begin{aligned} x - 2y + 2z &= 9 \\ -x + 3y \quad &= -4 \\ 2x - 5y + z &= 10 \end{aligned}$$

② EXAMPLE:

Solve this system.

$$\begin{aligned} x - 3y + z &= 1 \\ 2x - y - 2z &= 2 \\ x + 2y - 3z &= -1 \end{aligned}$$

③ EXAMPLE:

Solve this system.

$$\begin{aligned} x + y - 3z &= -1 \\ y - z &= 0 \\ -x + 2y &= 1 \end{aligned}$$

④ EXAMPLE:
Write a set of equations to solve this problem.

The measure of one angle of a triangle is two-thirds the measure of a second angle. The measure of the second angle is 12º greater than the measure of the third angle. Find the measures of the three angles of the triangle.