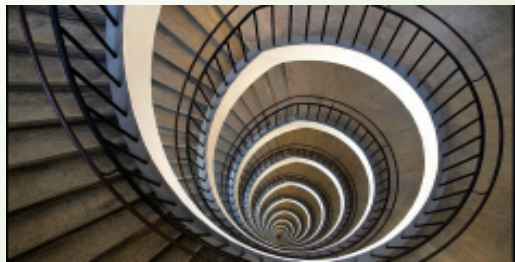
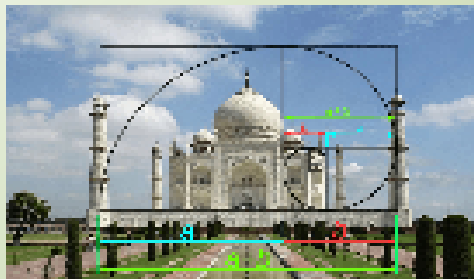


Mathematics in Real Life

In Architecture:



Fibonacci sequence



Golden ratio

$$a+b/a = a/b = 1.618... = \phi$$

$$\begin{cases} -3x + 4y = 5 \\ 2x - y = -10 \end{cases}$$

$$\begin{bmatrix} -3 & 4 \\ 2 & -1 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 5 \\ -10 \end{bmatrix}$$

$$AX = B$$

$$X = A^{-1}B$$

$$x = -7$$

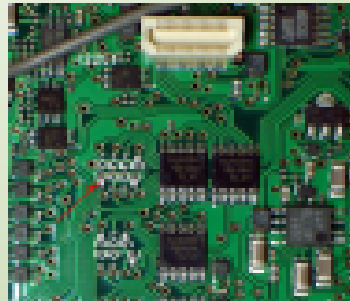
$$y = -4$$

$$(-7, -4)$$

Matrices

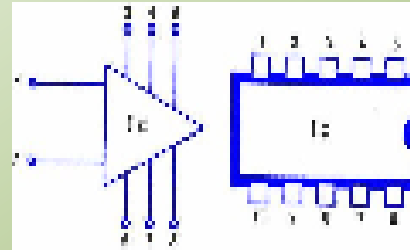
To find the stress of components of buildings
By solving linear equations

In technology



Boolean Algebra

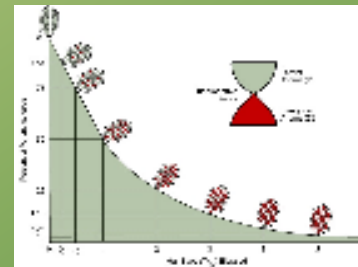
Widely use to make integrated circuits etc
E.g. Mobile phone, PC and electronic instruments etc



Growth and Decay



Bacterial Culture Growth



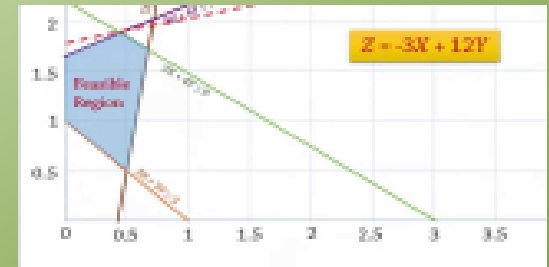
Radioactive decay

$$P = P_0 e^{kt}$$

$k > 0$ for growth, $k < 0$ for decay

Also helps to find Human population growth

In Banks / Business



Linear Programming

To estimate maximum profit or minimum loss of the investment or vice versa

In Kitchen



For delicious and perfect dish measurement is the most required thing



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M.SC Mathematics part-I