

Solutions Sets

Homogeneous Equations

Span

Linear Algebra
MATH 2076



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(We need some $a_j \neq 0$; then we can solve for x_j in terms of the remaining variables; these remaining $n - 1$ variables are the *free variables*.)

How does the solution set to the above LE change when we change the rhs constant b ? What if we make $b = 0$?

Lines in \mathbb{R}^2

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The solution set for $A\vec{x} = \vec{0}$ is **always** just the **span** of some vectors; always!