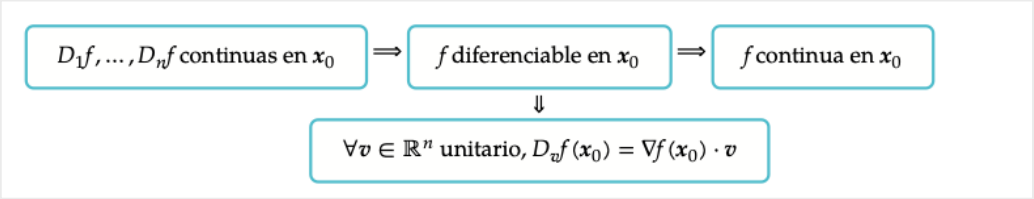
calc2manim

TODO R1:
explain what we are doing computationally (defined means f(x) exists there, continuous means ___)
removable is only if the function can be PATCHED
fix playing time
explain CLEARLY!!
-> especially why it only makes sense to think about diff. if we have continuity, and the intuition (rate of change, but if we dont know, how can we tell? come up w some trivial example)
fix glitch r1diff fadeoutc
do R1 equivalent of flowchart

Show xyz plane, explain for each x y there is an f(x,y) associated with z (height)
$\forall \boldsymbol{v} \in \mathbb{R}n$ unitario, $D\boldsymbol{v}f\ (\boldsymbol{x}0) = \nabla f\ (\boldsymbol{x}0) \cdot \boldsymbol{v}$.
$\nabla f\ (\boldsymbol{x}0)$ indica la dirección y sentido de máximo crecimiento de f en $\boldsymbol{x}0$.

Reshow cont and diff
Center cont
Cont is when the fxn is defined everywhere, show normal cont
Show evitable cont, when the fxn is defined as a point where you need to pick up pencil but always the same PATCH = parche
Show nonexistant limit (sage example)



maybe do R1 equivalent

Reshow cont and diff
Center cont
Diff is when we can have cont f_x and f_y, but this is hard, so we do
fx(v1) and fy(v1) exist, and limit* is 0 (error as distance diminishes)

SPECIFY DIFFERENCE BETWEEN A FUNCTION IN 3D (2D INPUT...) AND A DOMAIN IN 3D GIVEN BY AN EQUATION, fxns are always surfaces (vertical line test !!! (if associate output with the z axis)). domains can have volume

parametrizacion!!