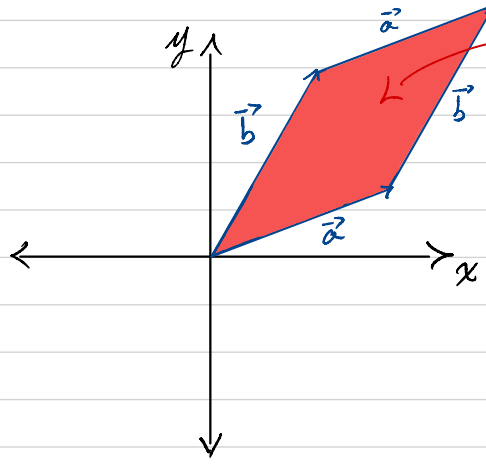
Math 102 · Lab 7 · Art Class

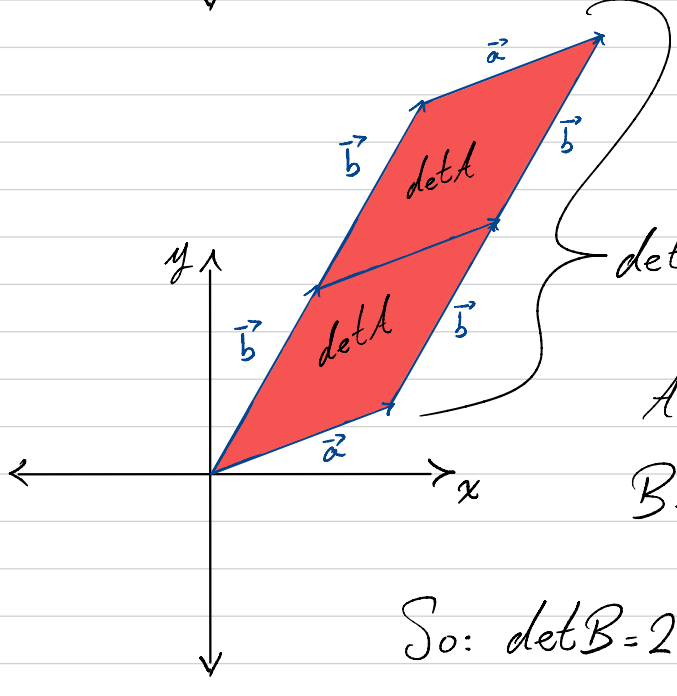
Let $\vec{a} = (a_1, a_2)$, $\vec{b} = (b_1, b_2) \in \mathbb{R}^2$. Then:



$\det A$ = area

$A = [\vec{a}\ \vec{b}] = \begin{bmatrix} a_1 & b_1 \\ a_2 & b_2 \end{bmatrix}$

Example:



$A = [\vec{a}\ \vec{b}]$

$B = [\vec{a}\ 2\vec{b}] = \begin{bmatrix} a_1 & 2b_1 \\ a_2 & 2b_2 \end{bmatrix}$

So: $\det B = 2 \cdot \det A$