# Competitive Programming Code and Math Library

## Cody Barnson

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# Geometry

- 1 Basics
- 1.1 Cross product

Cross product, in 2D,

$$\vec{v} \times \vec{w} = \|\vec{v}\| \|\vec{w}\| sin\theta$$

## LaTeX

2 Examples

$$\begin{pmatrix} 1 & 2 & -3 \\ 4 & 0 & 1 \end{pmatrix}$$

Figure 1: pmatrix

#### Matrices