

#flo #inclass

1 | best fit lines review

1.0.1 | general form:

$$\begin{bmatrix} x_1 & 1 \\ x_2 & 1 \end{bmatrix} * \begin{bmatrix} m \\ b \end{bmatrix} = \begin{bmatrix} y_1 \\ y_2 \end{bmatrix}$$

$$m \cdot x_1 + b = y_1 \quad m \cdot x_2 + b = y_2$$

can only find lines if they are not colinear

can use determinant to check if lines are colinear
 parrel or equal
 if it's 0

solve for slopes, simplify, and you get $0 = ad - bc$ damn that's cool!

1.0.2 | can't solve when $ad=bc$, or $-b/a = -d/c$

for example, \$ $\begin{bmatrix} 1 & 2 \\ 1 & 2 \end{bmatrix}$ \$ because $1 * 2 = 1 * 2$

or

\$ $\begin{bmatrix} 2 & 4 \\ 1 & 2 \end{bmatrix}$ \$ because $2 * 4 = 1 * 4$

two axis in 3 space

we listerally have grapher... bro #review play with grapher it's cool