

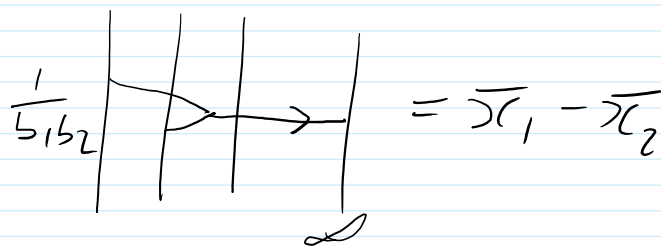
# The radical of 0-co

June 9, 2016 2:22 PM

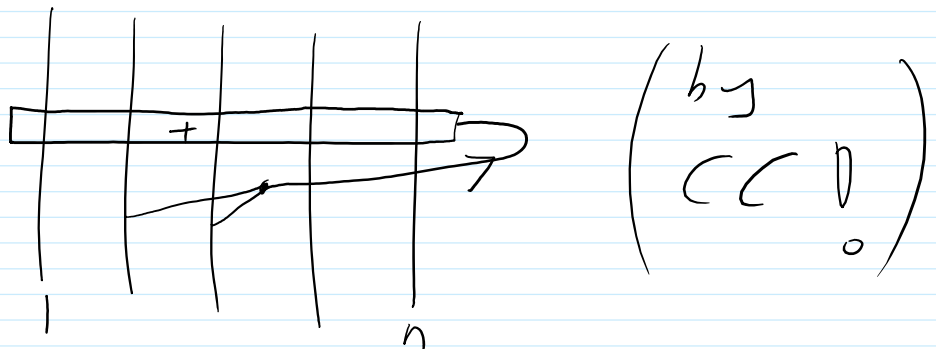
$$\begin{bmatrix} (A \ b) \\ (0 \ 0) \end{bmatrix} \begin{bmatrix} (c \ d) \\ (0 \ 0) \end{bmatrix} = \begin{bmatrix} AC \ Ad \\ 0 \ 0 \end{bmatrix} = \begin{bmatrix} CA \ Cb \\ 0 \ 0 \end{bmatrix} = \begin{bmatrix} [C|A] \ Ad-Cb \\ 0 \ 0 \end{bmatrix}$$

So  $\begin{pmatrix} 0 & b \\ 0 & 0 \end{pmatrix} \in \text{rad}$       So  $\begin{pmatrix} \alpha I & b \\ 0 & 0 \end{pmatrix} \in \text{rad}$

Use basis  $\bar{x}_1, \bar{x}_2, \bar{x}_2 - \bar{x}_3, \dots, x_1$



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$\Rightarrow$  the radical of  $A_{\text{prim}}^{1,2}$  is generated

by the above elements,  $\|A\|$  &  $\|f\|$ 's.