# Linear Algebra - EATEX HW 1 

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This 20 point homework is due Thursday, September 26 . I expect you to type your soluiton in $\mathrm{LAT}_{\mathrm{E}} \mathrm{X}$ print it out and turn in the hard copy.

## The Problem:

Let $\vec{v}_{1}$ and $\vec{v}_{2}$ be vectors in $\mathbb{R}^{n}$. Show that

$$
\left\langle\left\{\vec{v}_{1}, \vec{v}_{2}\right\}\right\rangle=\left\langle\left\{2 \vec{v}_{1}-\vec{v}_{2}, \vec{v}_{1}+2 \vec{v}_{2}\right\}\right\rangle .
$$

