| MA 237-02 <br> §1.1-1.2 | QuiZ \#1 |  | same: $\quad$ score |
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1. If $A=(1,2,4)$ and $B=(2,-1,3)$ are vectors in standard position (tail at the origin), find the vector that goes from the tip of $A$ to the tip of $B$. (6 points)
2. Determine a parametric equation for the line in $\mathbb{R}^{3}$ that contains the points $(1,2,3)$ and ( $2,-1,2$ ). ( 7 points)
3. The following set of matrices is a dependent set. Show this by expressing one of the matrices as a linear combination of the others. You should be able to see this by trial-and-error. (7 points)

$$
\left\{\left[\begin{array}{lll}
3 & 0 & 1 \\
2 & 1 & 4 \\
1 & 1 & 1
\end{array}\right],\left[\begin{array}{ccc}
1 & 2 & 3 \\
2 & 1 & 5 \\
-1 & -1 & -1
\end{array}\right],\left[\begin{array}{ccc}
2 & -2 & -2 \\
0 & 0 & -1 \\
2 & 2 & 2
\end{array}\right]\right\}
$$

