Name:

Math 314/814, Section 6

Quiz number 10 Make-up

Show all work. How you get your answer is just as important, if not more important, than the answer itself. If you think it, write it!

Find a basis for the orthogonal complement $W^\perp$ of the subspace $W \subseteq \mathbb{R}^4$ spanned by the vectors

$$\begin{pmatrix} 2 \\ 2 \\ 5 \\ -1 \end{pmatrix} \text{ and } \begin{pmatrix} 1 \\ 2 \\ 4 \\ -2 \end{pmatrix}.$$