## CSci 2033 Practice Exercises $\quad$ Set \#6 $\quad$ Feb. 9, 2018

1 Consider the matrix $A$
shown on the right.
(a) Are the columns of $A$ lin- $\left[\begin{array}{cccc}1 & 2 & 1 & -1 \\ 1 & 1 & 1 & 1 \\ 0 & 0 & 1 & 3 \\ \text { early dependent? } & -1 & 0 & 2\end{array}\right]$
(b) Does the last column belong to the span of the other columns?
(c) Does the first column belong to the span of the other columns?
(d) We now replace $A(4,4)$ by $A(4,4)=0$. Are the columns of thew new $A$ dependent?

