6.4 Let the eigenvalues be 2 and 3. Then, given the 2x2 matrix:

$$\begin{bmatrix} a & b \\ c & d \end{bmatrix}$$

The determinant is the product of eigenvalues, $\implies a * d - b * c = 2 * 3 = 6$. If we let $b = 0$, and $c = -1$, $a = 2$ and $d = 3$, then we get the matrix

$$\begin{bmatrix} 2 & 0 \\ -1 & 3 \end{bmatrix}$$

which has positive eigenvalues with one negative element.