TRANSPOSING MATRICES ANSWER SHEET

Exercise 1: Find the transpose of the following matrices

a) $A=\begin{pmatrix}1&0&0\\0&1&0\\0&0&1\end{pmatrix}$ $A^T=\begin{pmatrix}1&0&0\\0&1&0\\0&0&1\end{pmatrix}$

b) $B=\begin{pmatrix}-2&3&6\\4&7&13\end{pmatrix}$ $B^T=\begin{pmatrix}-2&4\\3&7\\6&13\end{pmatrix}$

c) $C=\begin{pmatrix}4&1\\5&2\end{pmatrix}$ $C^T=\begin{pmatrix}4&5\\1&2\end{pmatrix}$

d) $D=\begin{pmatrix}3&-4&7&9.5\\1&2&5&10\\6&6.2&-3&11\\-1&1.3&8&4\end{pmatrix}$ $D^T=\begin{pmatrix}3&1&6&-1\\-4&2&6.2&1.3\\7&5&-3&8\\9.5&10&11&4\end{pmatrix}$

e) $E=\begin{pmatrix}7&-7&8\\-8&4&3\\-3&2&1\end{pmatrix}$ $E^T=\begin{pmatrix}7&-8&-3\\-7&4&2\\8&3&1\end{pmatrix}$

f) $F=\begin{pmatrix}11&12\\13&19\end{pmatrix}$ $F^T=\begin{pmatrix}11&13\\12&19\end{pmatrix}$

g) $G=\begin{pmatrix}3\\5\\9\end{pmatrix}$ $G^T=(3\ 5\ 9)$

h) $H=(1\ 2\ 1)$ $H^T=\begin{pmatrix}1\\2\\1\end{pmatrix}$

i) $I=\begin{pmatrix}5&-6&7\\0&-2&4\\0&0&1\end{pmatrix}$ $I^T=\begin{pmatrix}5&0&0\\-6&-2&0\\7&4&1\end{pmatrix}$

j) $J=\begin{pmatrix}7&9&10&6\\-6&1&3&2\end{pmatrix}$ $J^T=\begin{pmatrix}7&-6\\9&1\\10&3\\6&2\end{pmatrix}$