**Matrices**

1. Multiply: $\left[\begin{matrix}1&2\\3&0\end{matrix}\right]\left[\begin{matrix}1\\-1\end{matrix}\right]$ =
2. Multiply: $\left[\begin{matrix}-1&2\\3&1\end{matrix}\right]\left[\begin{matrix}2&4\\3&1\end{matrix}\right]$ =
3. Matrix A shows number of stocks holding by William and Michael:



Matrix B shows price in dollars per share:





1. Find inverse to the given matrix
(see instructions on Blackboard in Course Material section for week 5):

 $\left[\begin{matrix}2&3\\3&5\end{matrix}\right]$
2. Use Excel function MINVERSE to find inverse to the given matrix
(see instructions on Blackboard in Course Material section for week 5):

 $\left[\begin{matrix}1&-1&3\\2&1&2\\-2&-2&1\end{matrix}\right]$

1. Find solution for the matrix equation $\left[\begin{matrix}2&5\\1&3\end{matrix}\right]\left[\begin{matrix}x\\y\end{matrix}\right]$ = $\left[\begin{matrix}3\\2\end{matrix}\right]$ using inverse matrix.

Tip: for matrix A = $\left[\begin{matrix}2&5\\1&3\end{matrix}\right]$ find inverse matrix A-1 .
 Then multiply inverse matrix A-1 by column $\left[\begin{matrix}3\\2\end{matrix}\right]$

 $\left[\begin{matrix}x\\y\end{matrix}\right]= A^{-1}\*\left[\begin{matrix}3\\2\end{matrix}\right]$

 See examples posted on Blackboard in Course Material section for week 5.