1. For the system below, do the following
a. Create unit vectors ( $\mathrm{u} 1, \mathrm{u} 2, \mathrm{u} 3$ ) for the forces shown.
b. Calculate the force vectors using the results from a).
c. Put these three force vectors into a matrix 'forces'. (See the example below - you will not have the column and row labels though)
d. Sum up the x and y components of the force vectors in 'forces' using the 'sum' function. Put the result in an array called 'resultant'.


|  | x-component | y-component |
| :---: | :---: | :---: |
| Force 1 | $\#$ | $\#$ |
| Force 2 | $\#$ | $\#$ |
| Force 3 | $\#$ | $\#$ |

2. Find the following sum by first creating vectors for the numerators and denominators. Then use the ./ operator to divide.

$$
\frac{3}{1}+\frac{5}{2}+\frac{7}{3}+\frac{9}{4}
$$

