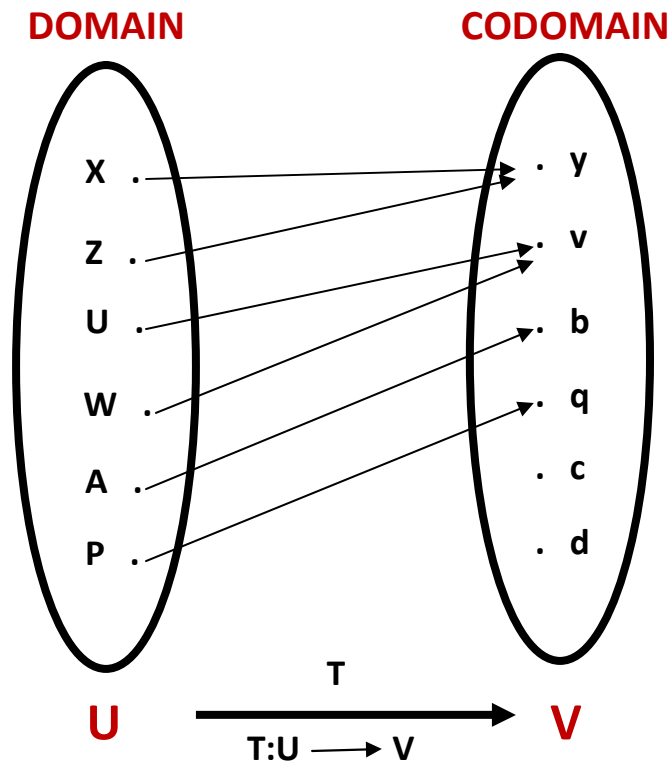


ILLUSTRATION FOR LINEAR TRANSFORMATION AS PRESENTED BY GROUP 1



Presented above are two **ovals** which represent the vector space. The **dot** beside the stated elements in the vector space (ovals) represents the vector, the oval on the right is **U** which is the domain and the oval on the left is **V** which is the co-domain and then the **arrows** represents linear transformation from the domain to the co-domain mapping vectors, **One to One** or **Two to One** mapping from domain to co-domain.

Looking at the figure above, the elements **X** and **Z** undergo linear transformation to give an output **y**, this two to one mapping is the same for elements **U** and **W** on the domain undergoing linear transformation to give element **v** while elements **A** and **P** undergoes a **One to One** mapping through linear transformation to give **b** and **q** respectively.

From the diagram above we have the following:

$$T(X) = T(Z) = y$$

$$T(U) = T(W) = v$$

$$T(A) = b$$

$$T(P) = q$$