$$\beta = \begin{array}{c} \ell \longrightarrow m \longleftarrow n \\ \downarrow & \downarrow & \downarrow \\ \downarrow & \downarrow & \downarrow \\ \uparrow & \uparrow & \uparrow \\ v' \longrightarrow w' \longleftarrow x' \end{array}$$