$$x[n] \longrightarrow \underbrace{H(z)}_{y_1[n]} \underbrace{\uparrow L}_{y[m]} = x[n] \longrightarrow \underbrace{\uparrow L}_{y_2[m]} \underbrace{H(z^L)}_{y_2[m]} \longrightarrow y[m]$$
(a)
(b)