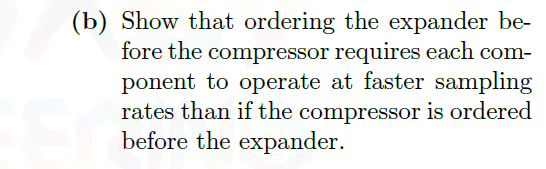


Let L = 2 and M = 5 then the sampling rate will change to be



If is our sampling frequency at 1kHz. Then by expanding by a factor of L = 2 we are now operating at a frequency of . Then when we compress by a factor M we are operating at a frequency of

Now if we compress first by an example of M = 5 we will be operating at a frequency of . Then expanding by a factor of L = 2 brings us to .

By expanding first we are requiring our components to operate at a faster 2kHz frequency.