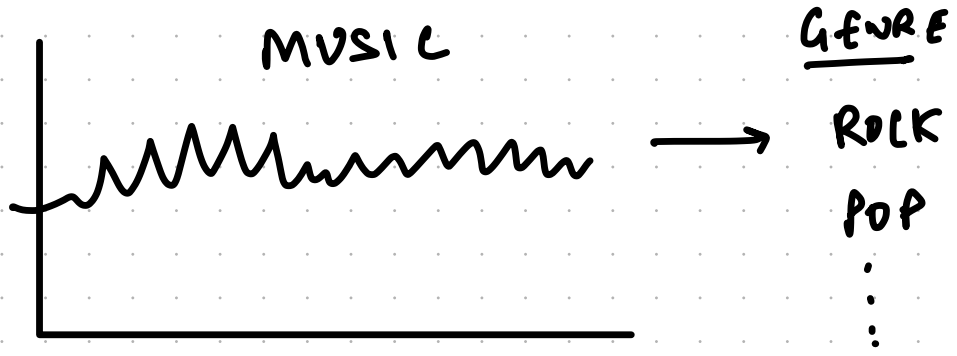
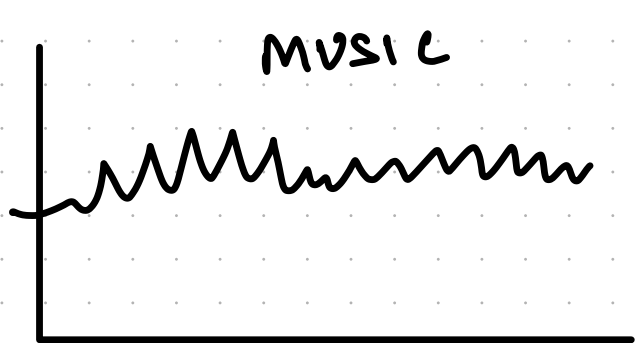


1D data

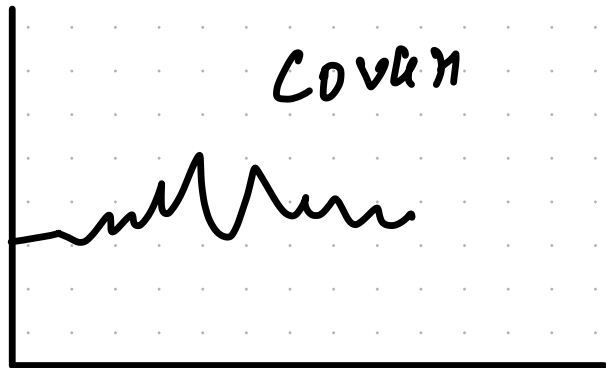


1D data



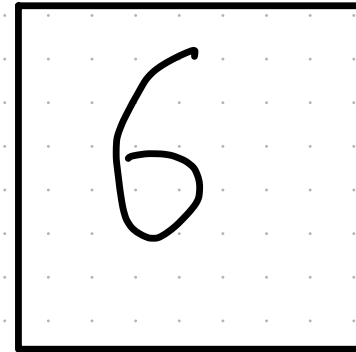
→ GENRE  
ROCK  
POP  
⋮

OR



→ COVID  
NOT-COVID

2D (Image data)



→ Digit  
0  
1  
⋮  
9 ✓

1D data



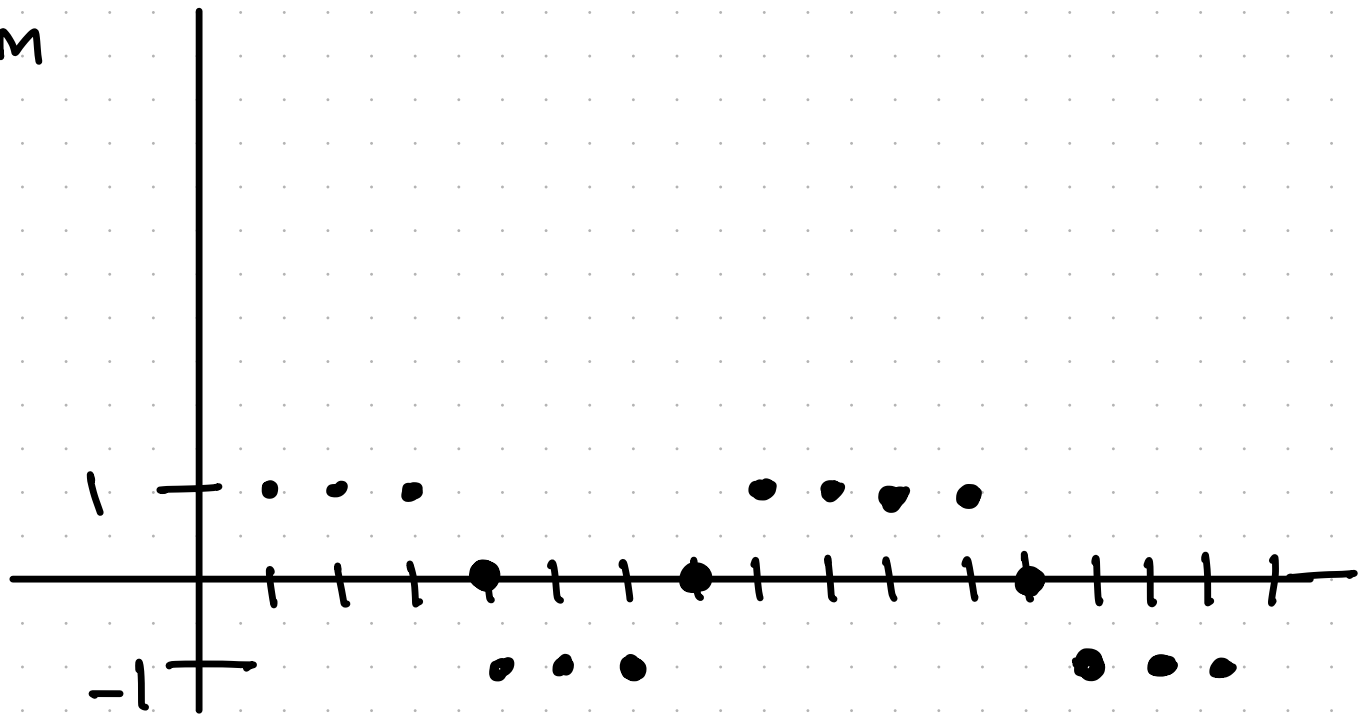
GENRE

ROCK

POP

⋮

ZOOM



1D data



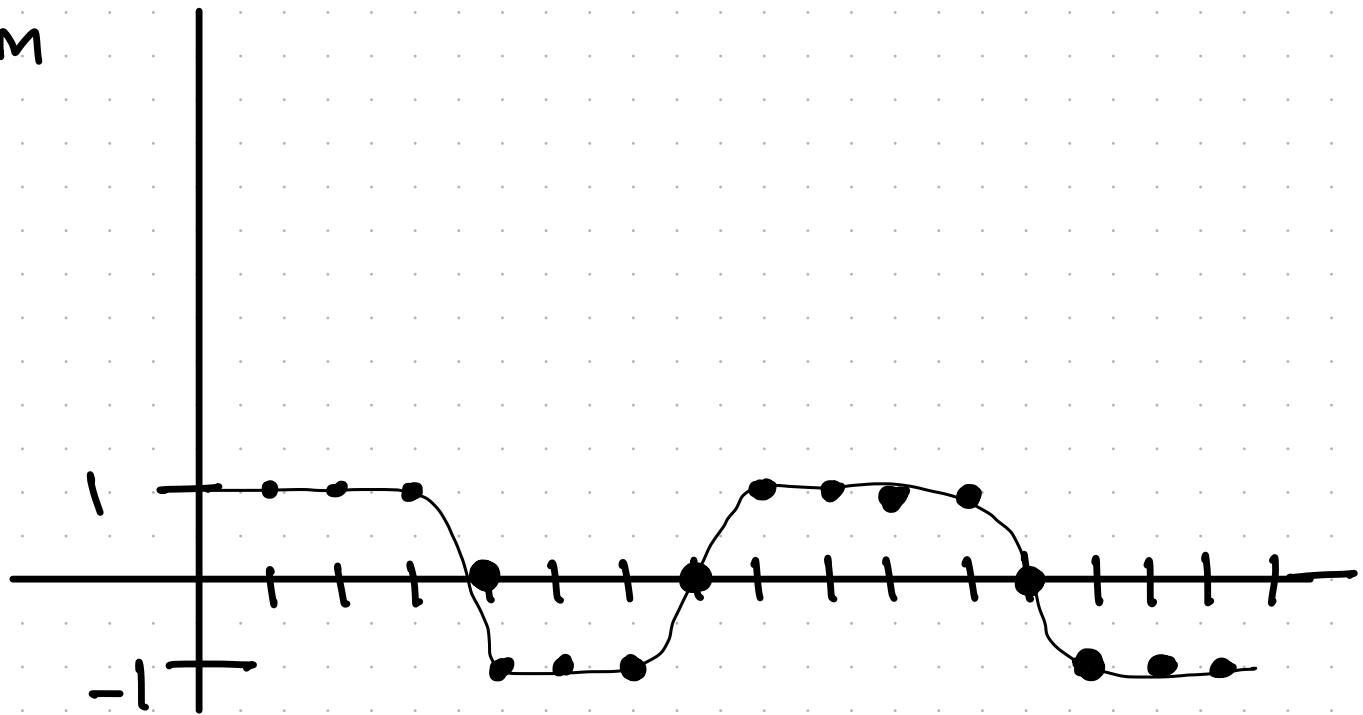
GENRE

ROCK

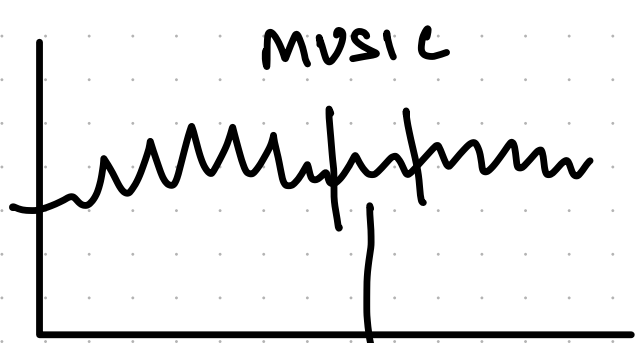
POP

⋮

ZOOM



1D data



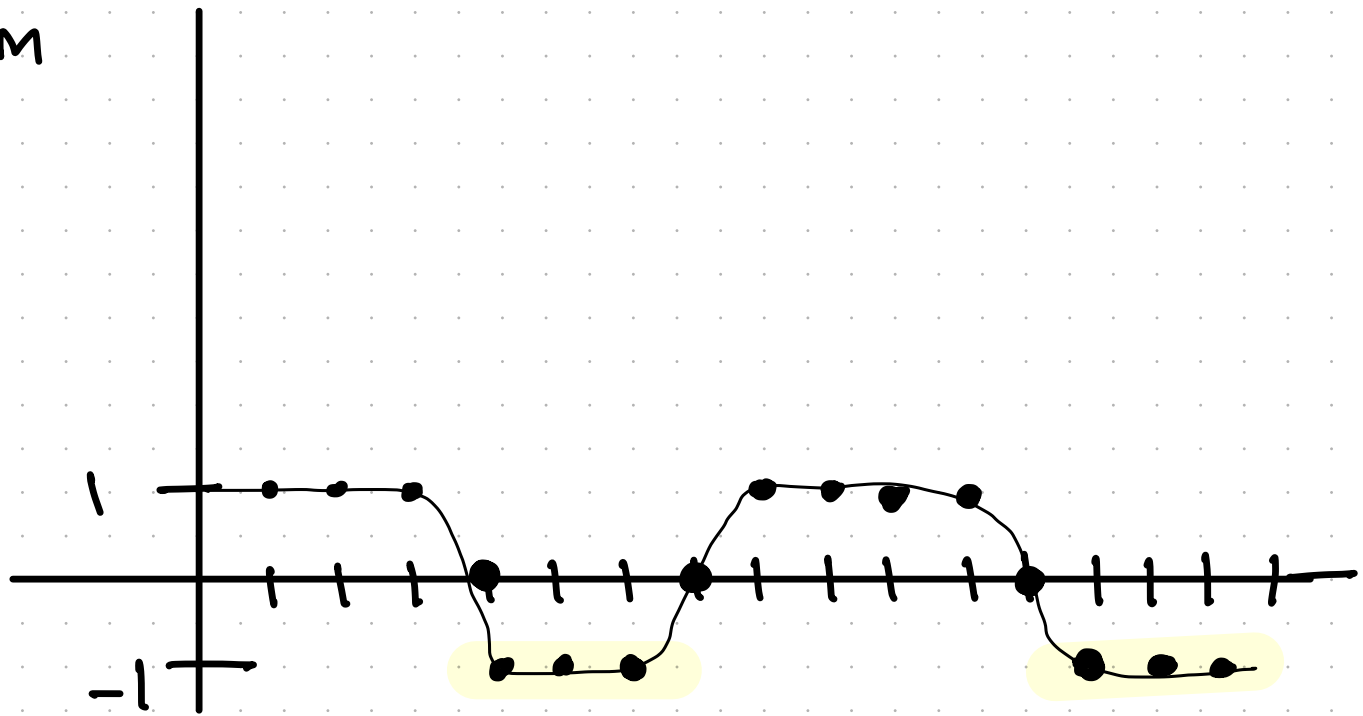
GENRE

ROCK

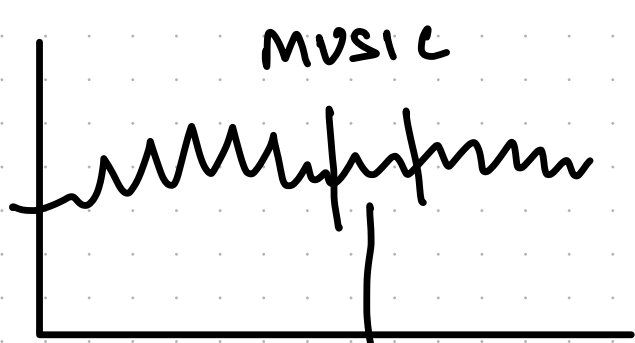
POP

⋮

ZOOM



1D data



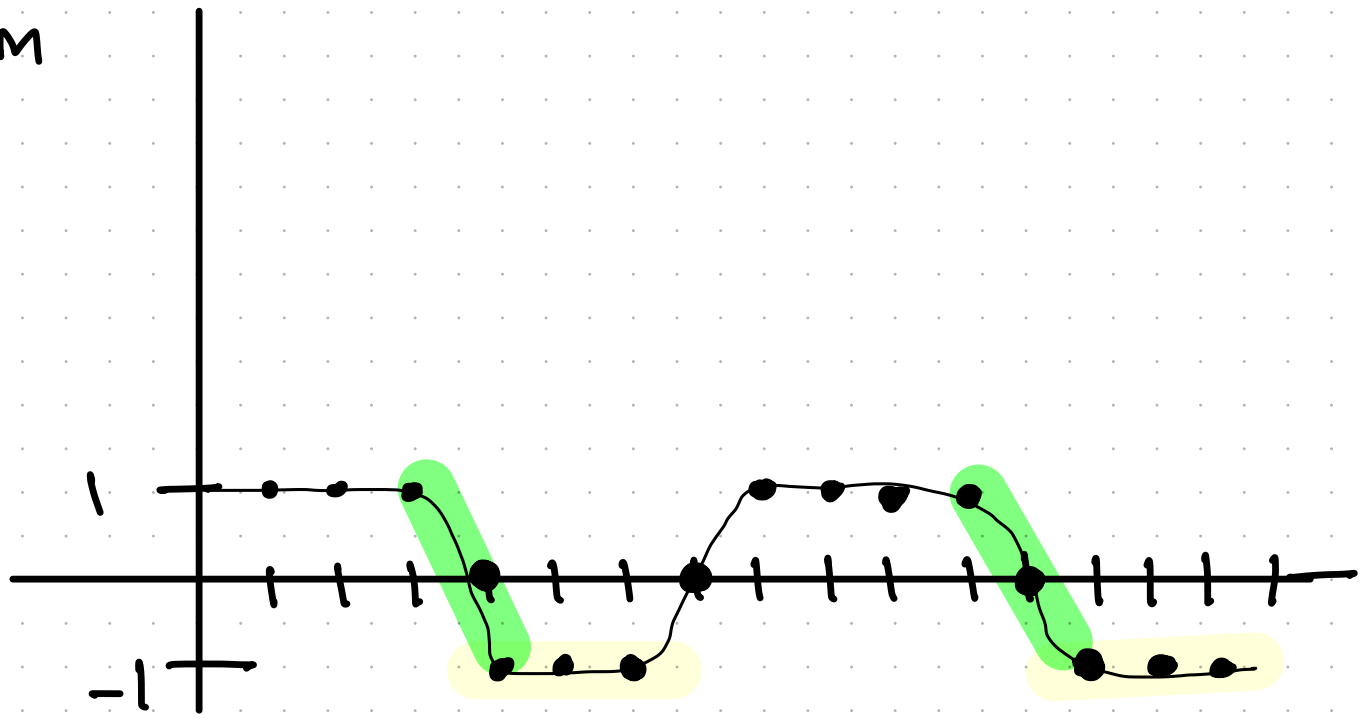
GENRE

ROCK

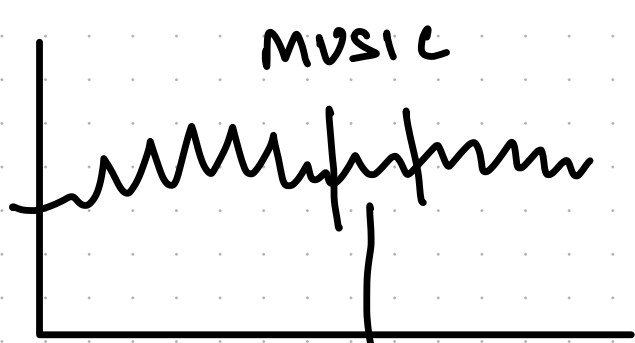
POP

⋮

ZOOM



1D data



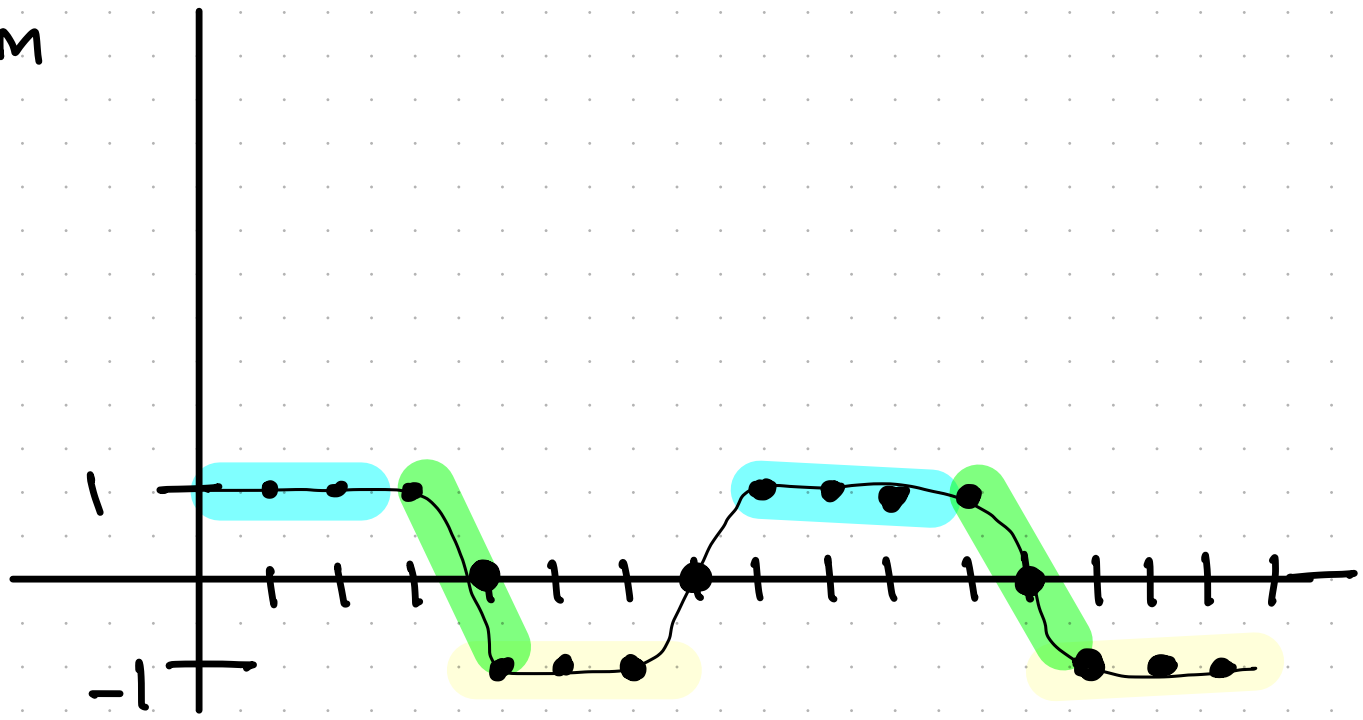
GENRE

ROCK

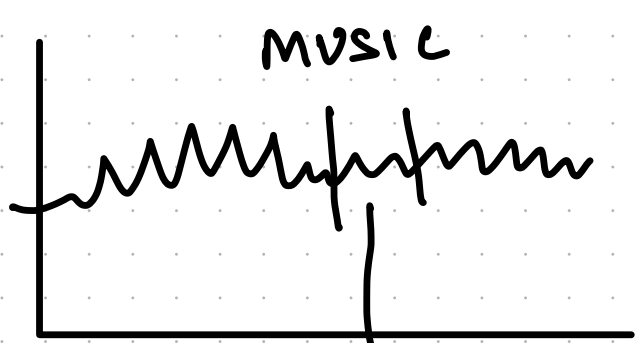
POP

⋮

ZOOM



1D data



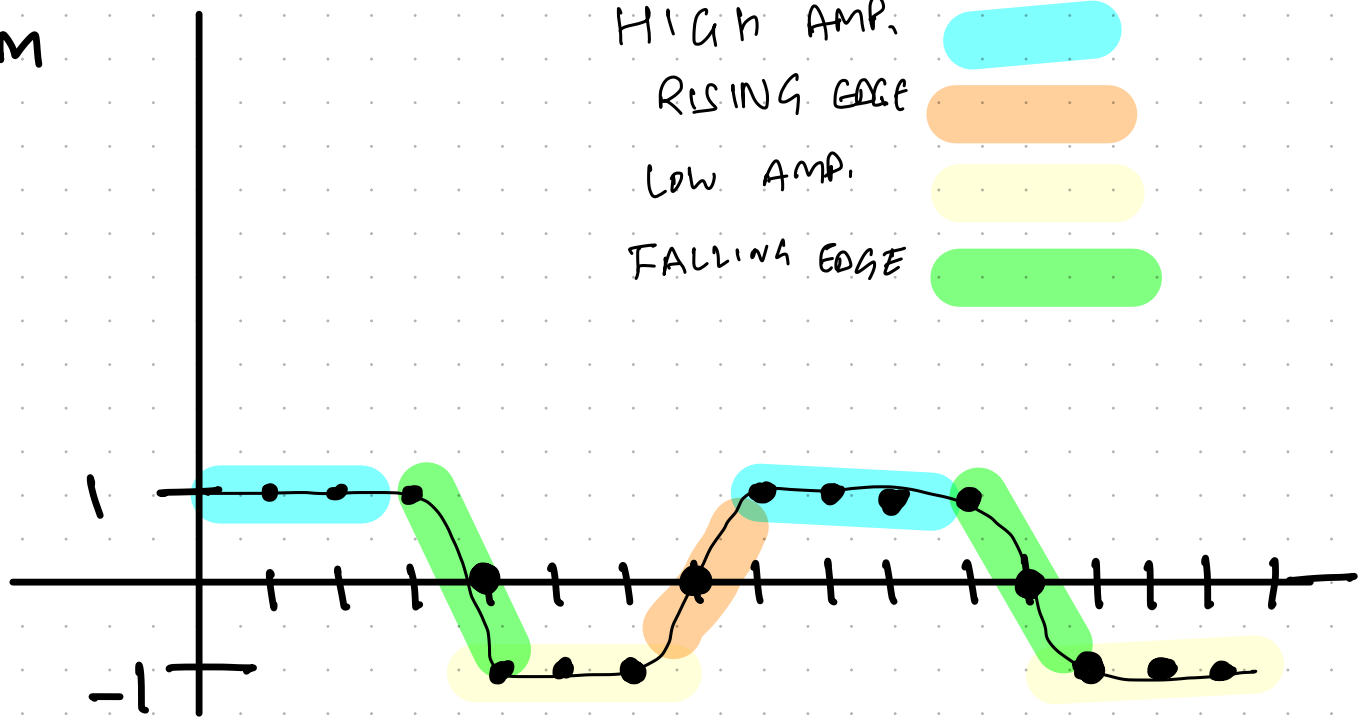
GENRE

ROCK

POP

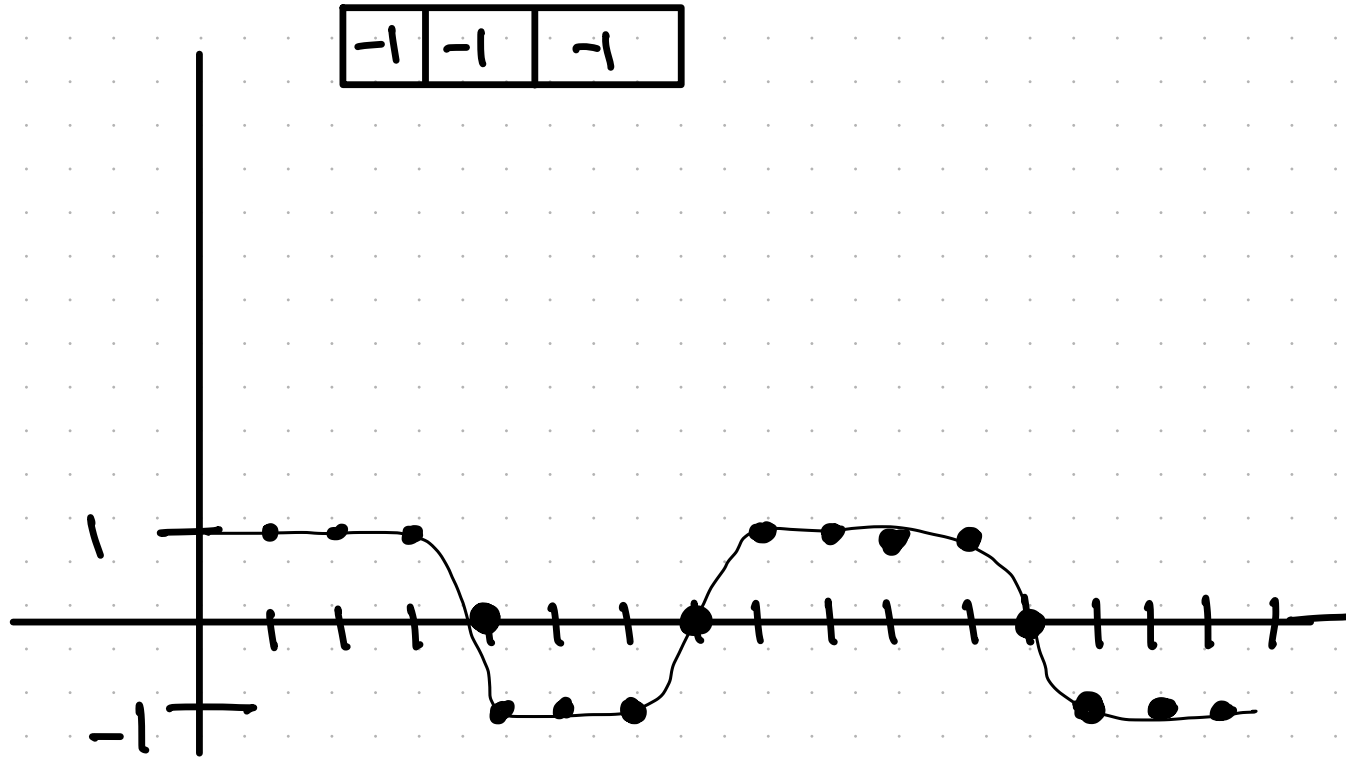
⋮

ZOOM

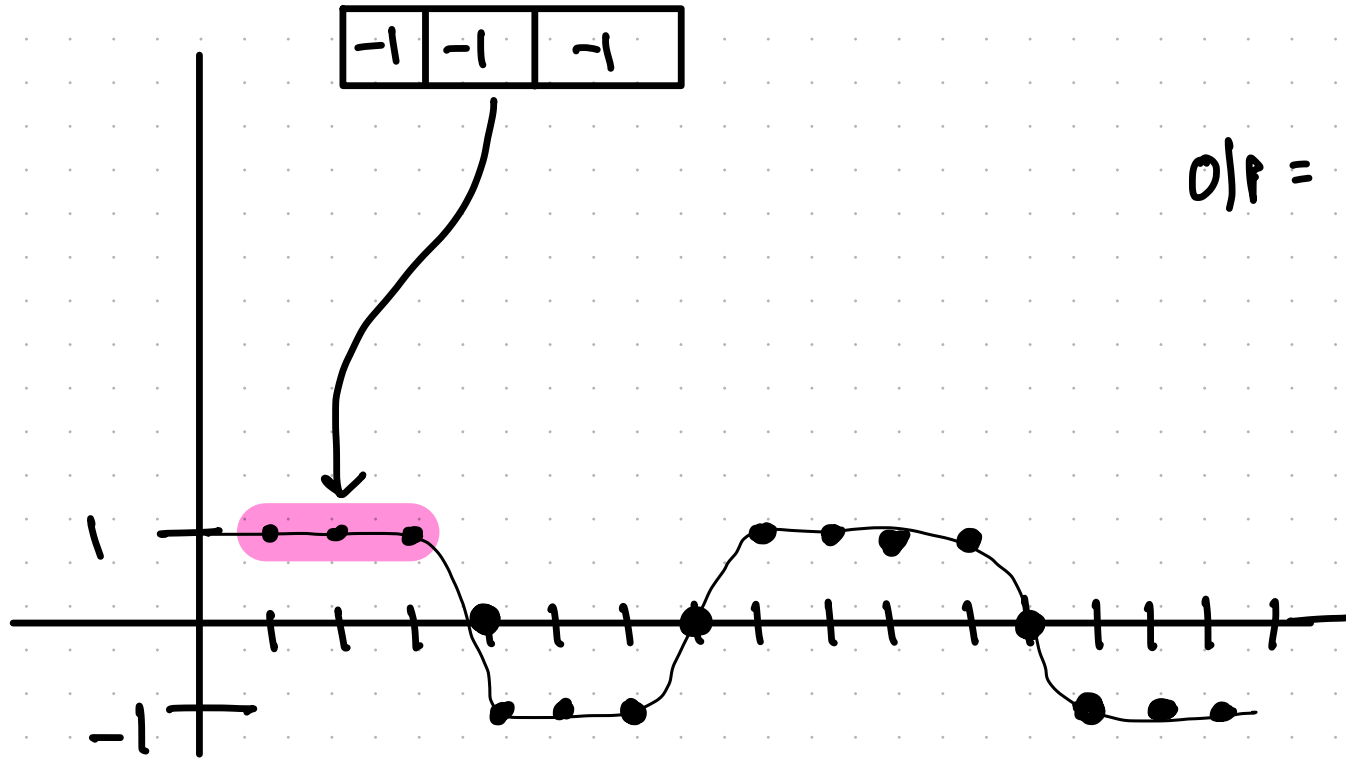




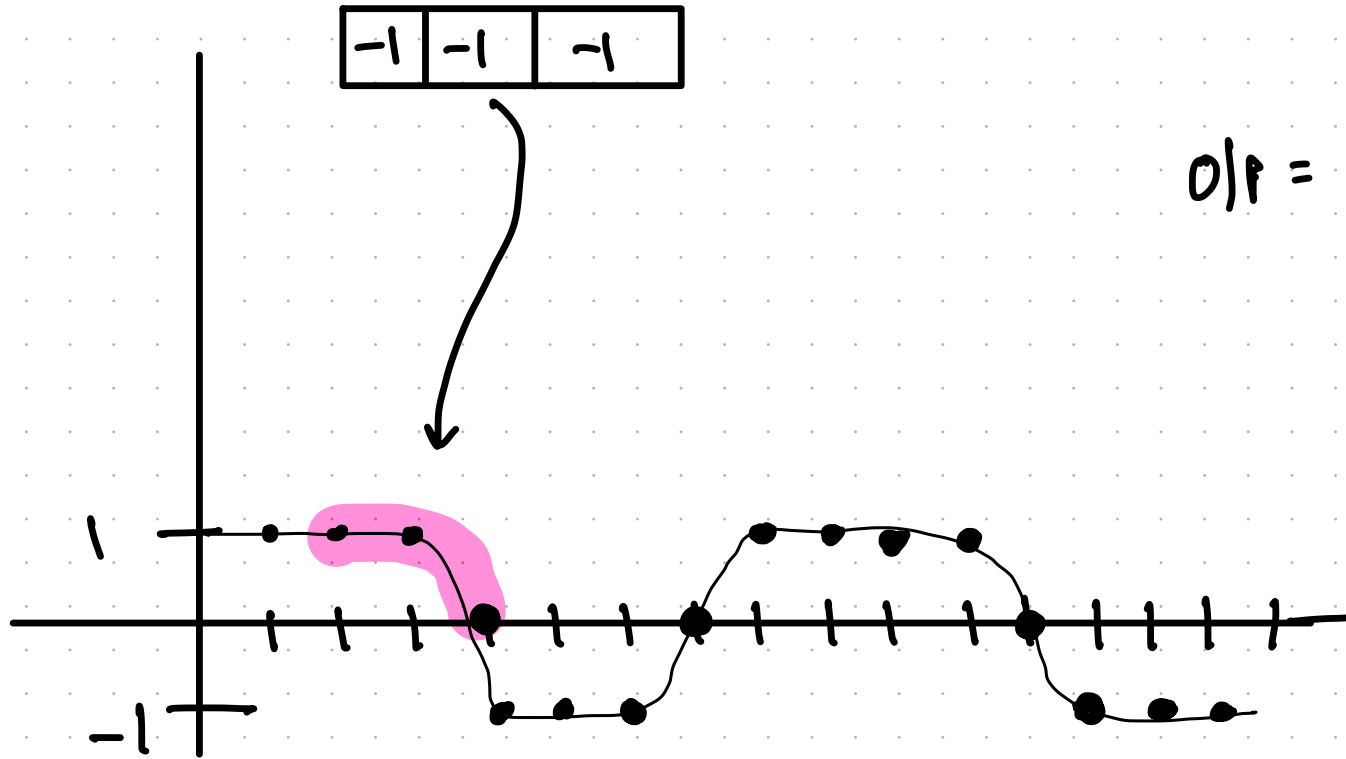
# LOW Amplitude Filter



# LOW Amplitude Filter



# LOW Amplitude Filter

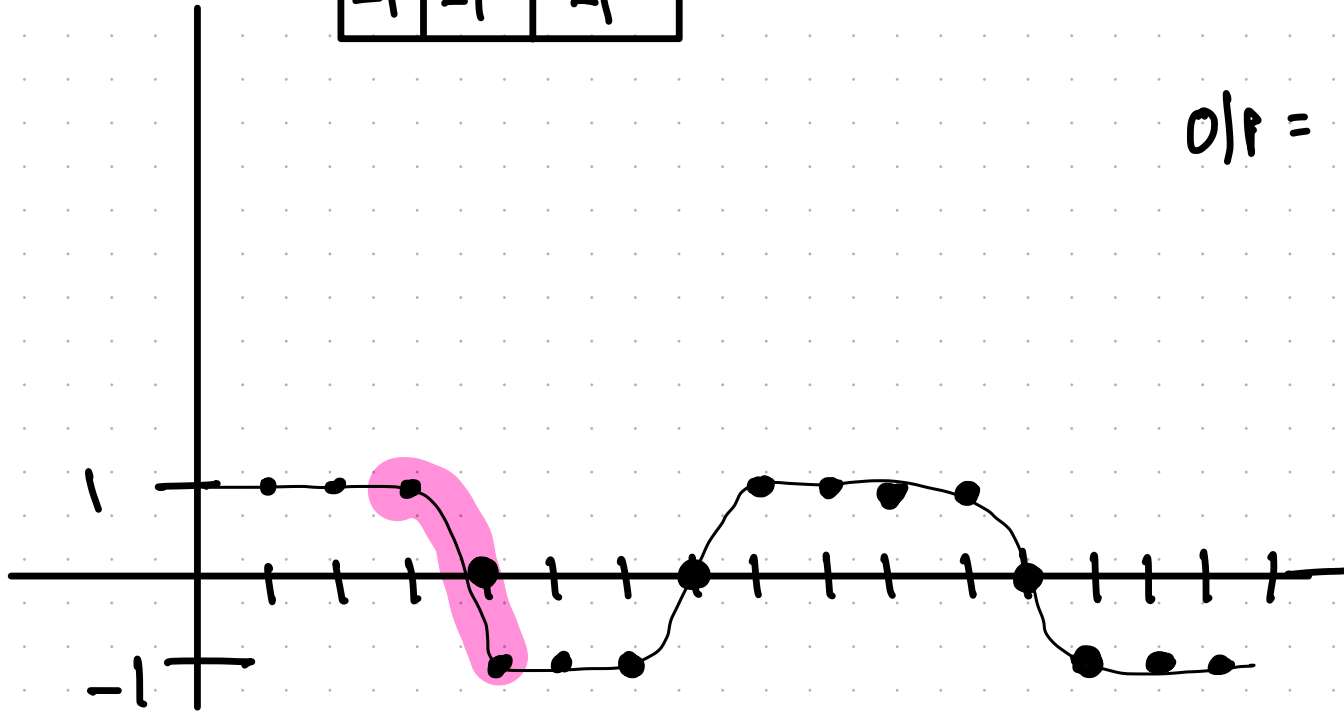


$$\begin{aligned} \text{O/P} &= -1 \times 1 - 1 \times 1 - 1 \times 0 \\ &= -2 \end{aligned}$$

# LOW Amplitude Filter

-1	-1	-1
----	----	----

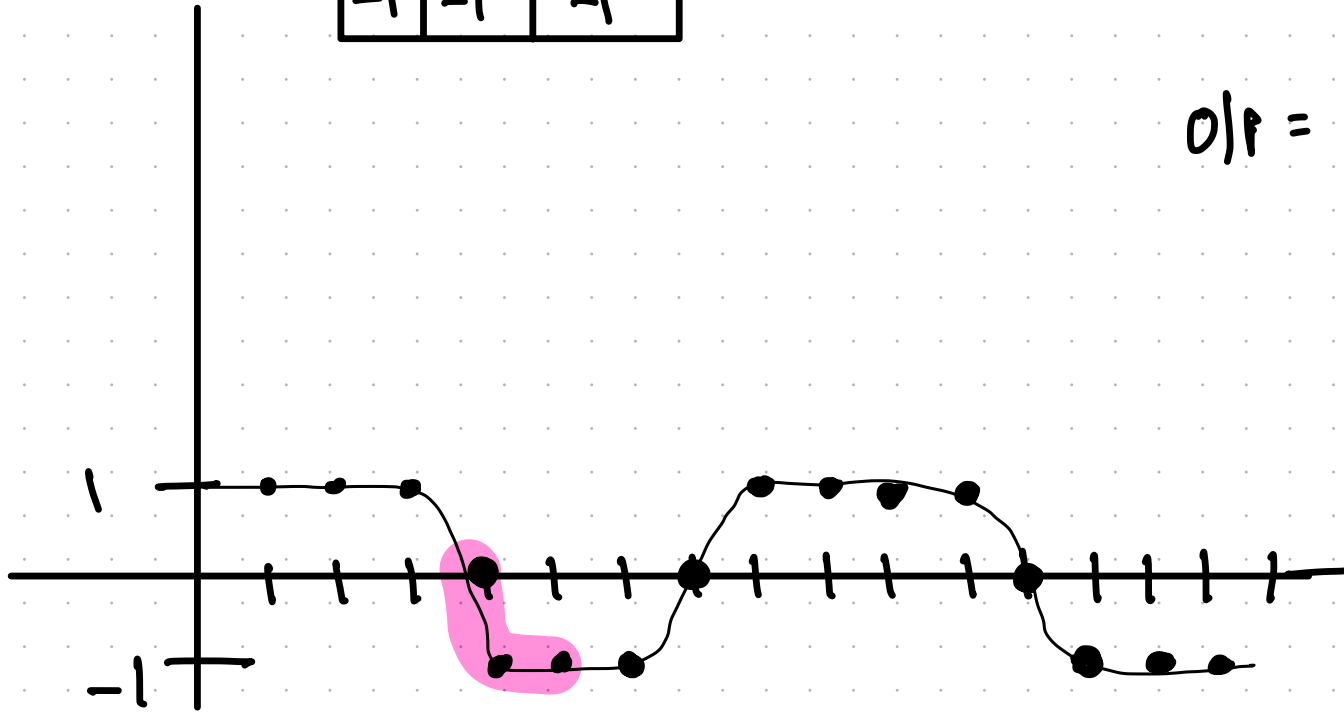
$$\begin{aligned} O/P &= -1x1 -1x0 -1x-1 \\ &= 0 \end{aligned}$$



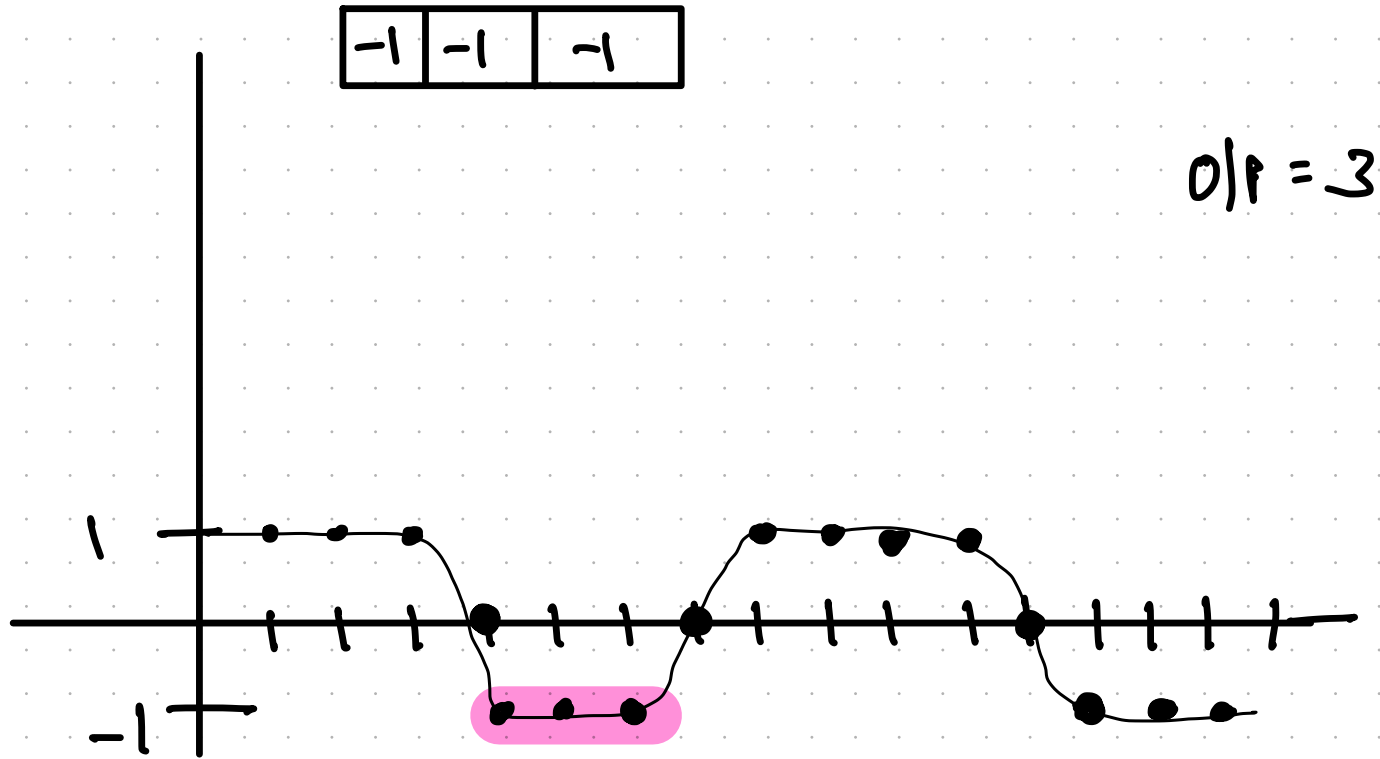
# LOW Amplitude Filter

-1	-1	-1
----	----	----

O/P = 2



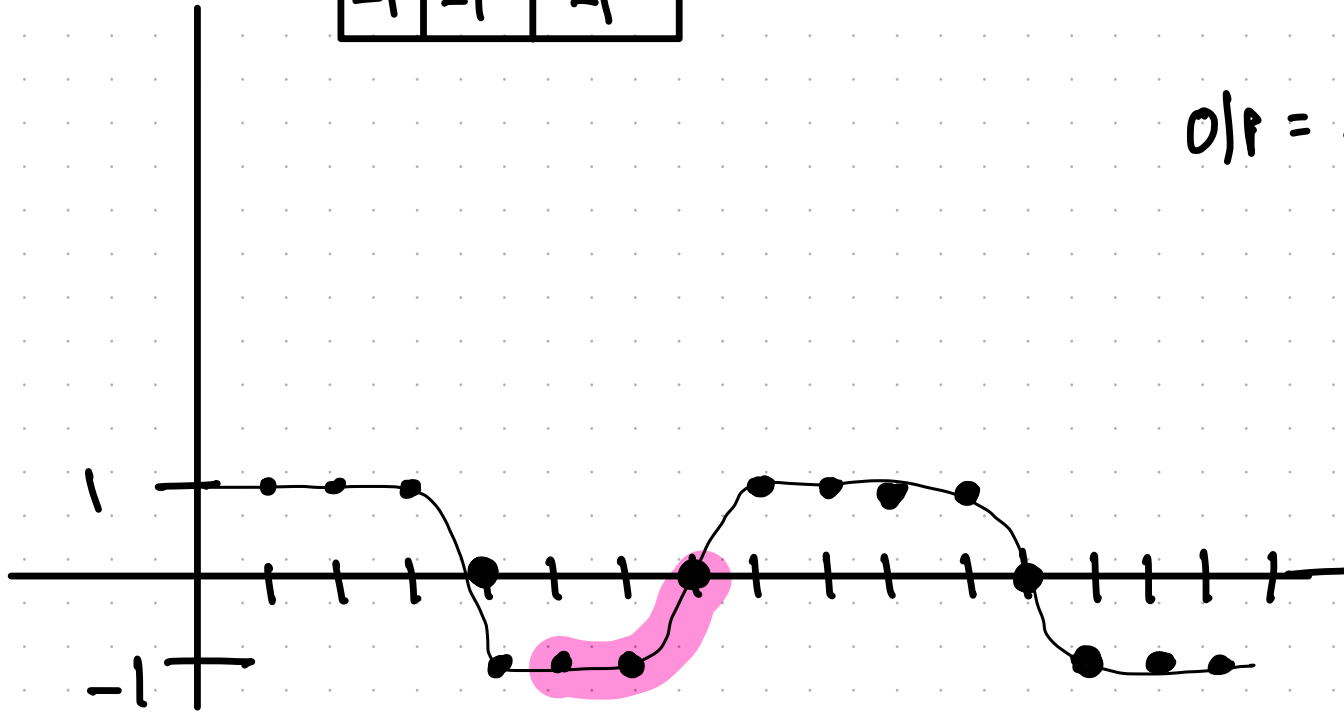
# LOW Amplitude Filter



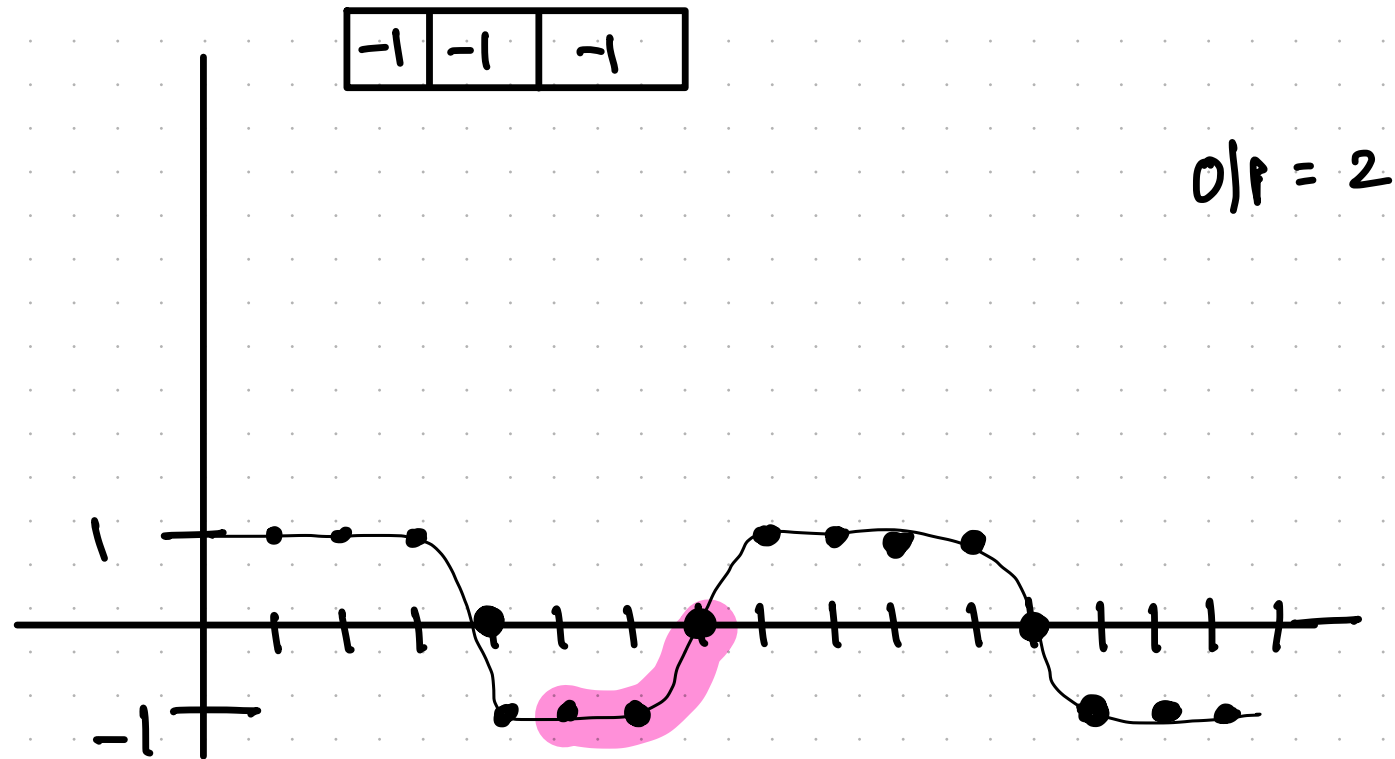
# LOW Amplitude Filter

-1	-1	-1
----	----	----

O/P = 2



# LOW Amplitude Filter



Can we say -  $\text{RELU}(x_{t-k:t+k} \otimes F)$   
gives us low amplitudes?

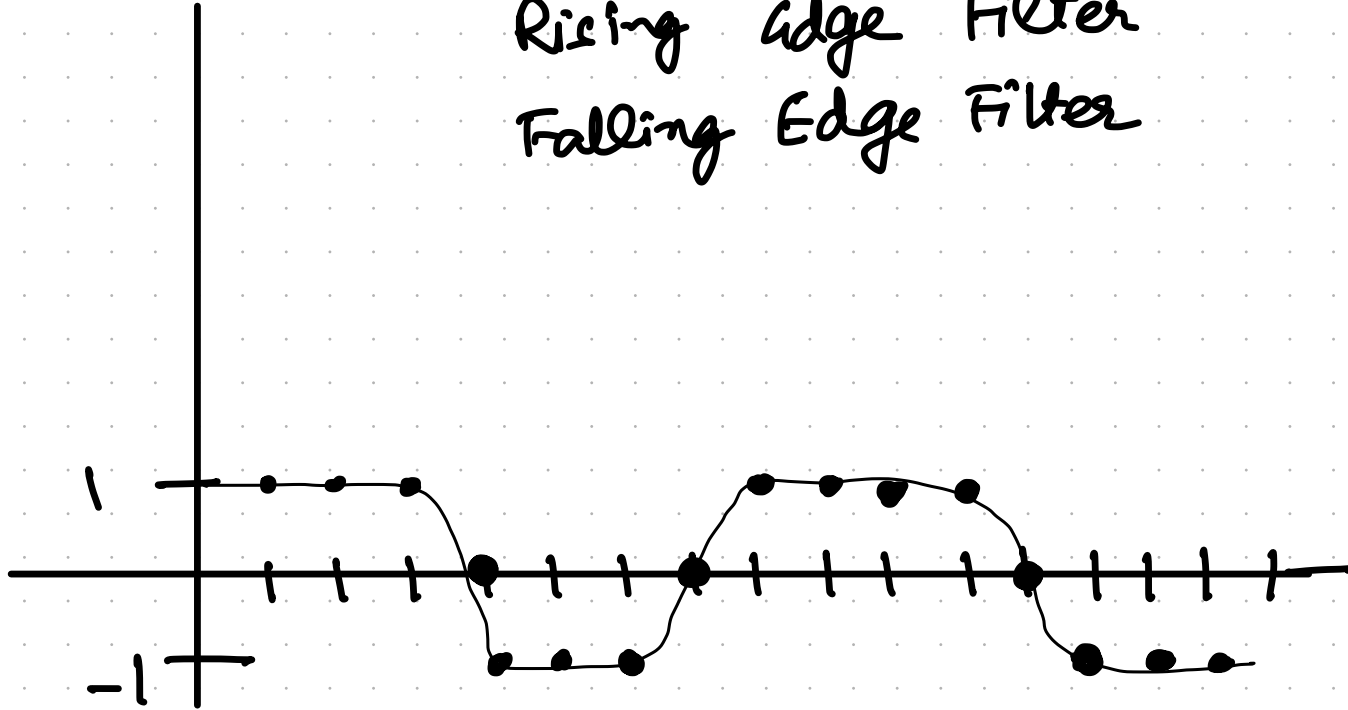


LOW AMPLITUDE FILTER  $[-1, -1, -1]$

HIGH Amplitude Filter

Rising Edge Filter

Falling Edge Filter



LOW AMPLITUDE FILTER

$$[-1, -1, -1]$$

HIGH Amplitude Filter

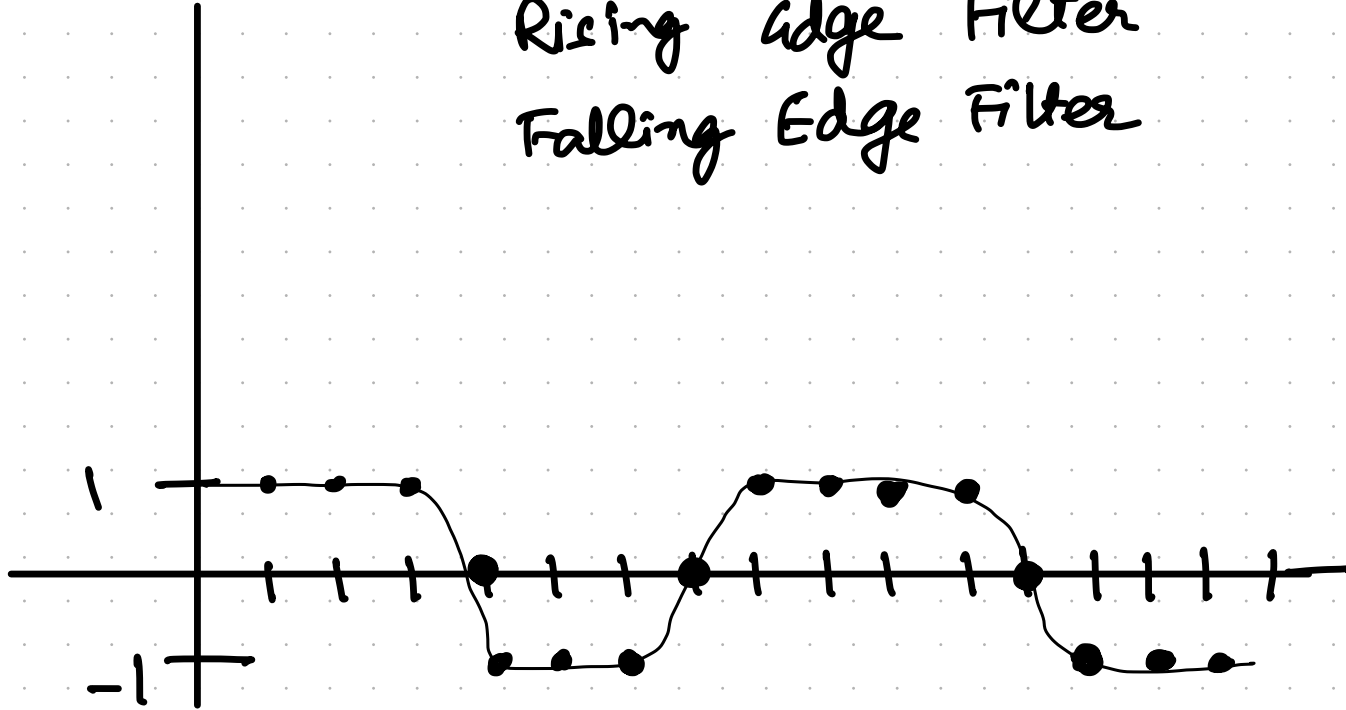
$$[1, 1, 1]$$

Rising Edge Filter

$$[-1, 0, 1]$$

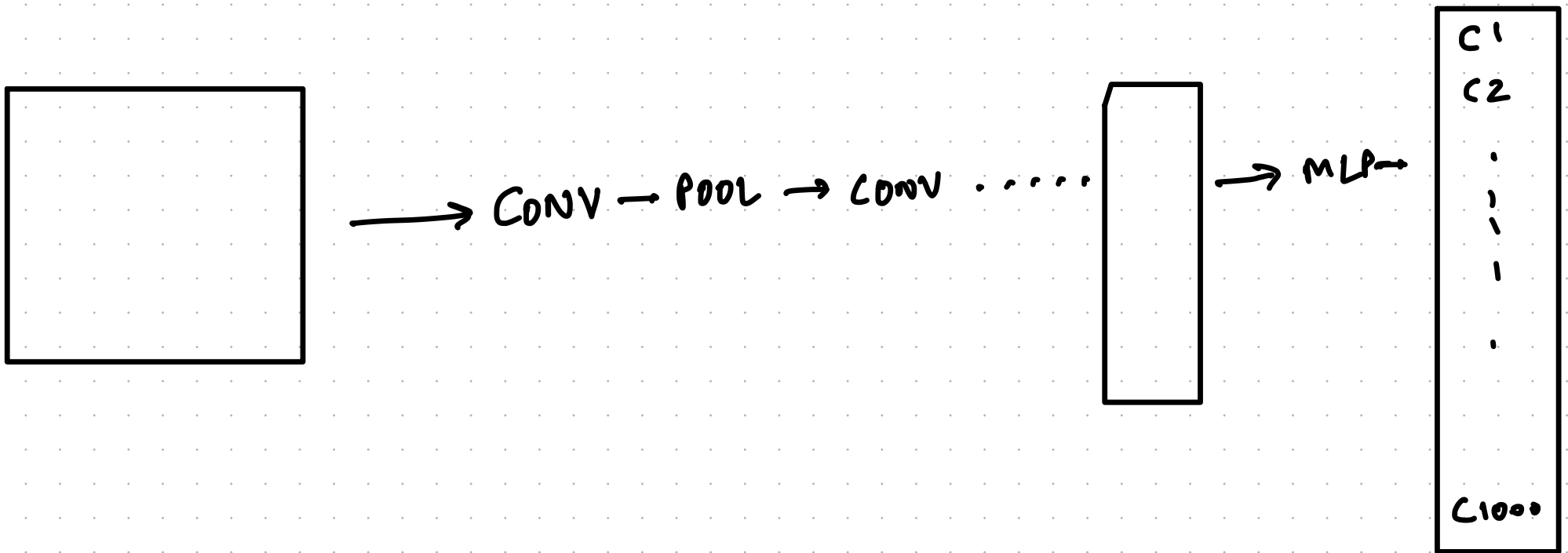
Falling Edge Filter

$$[1, 0, -1]$$



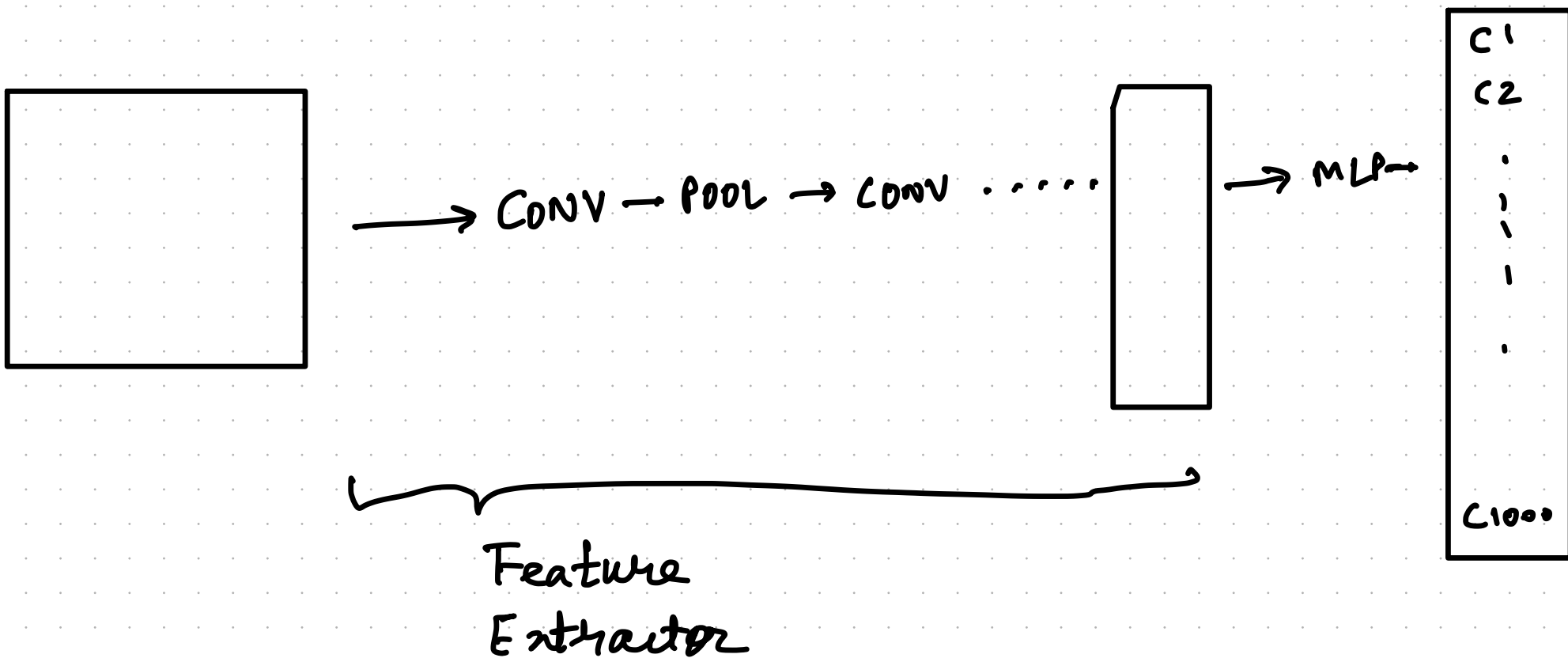
# Transfer learning

- Say we have a n/w trained on Imagenet (1000 classes)



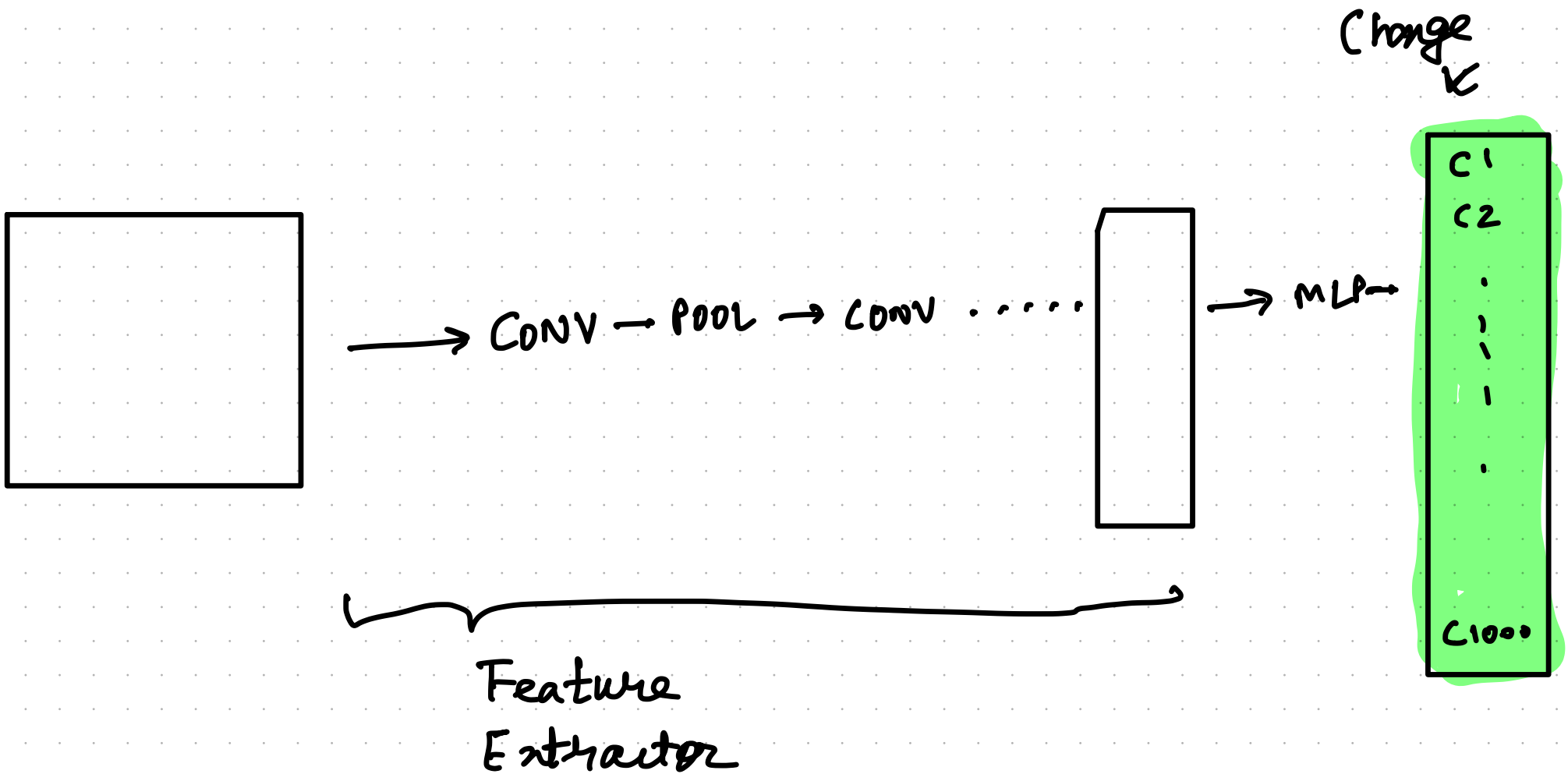
# Transfer learning

- Say we have a n/w trained on Imagenet (1000 classes)



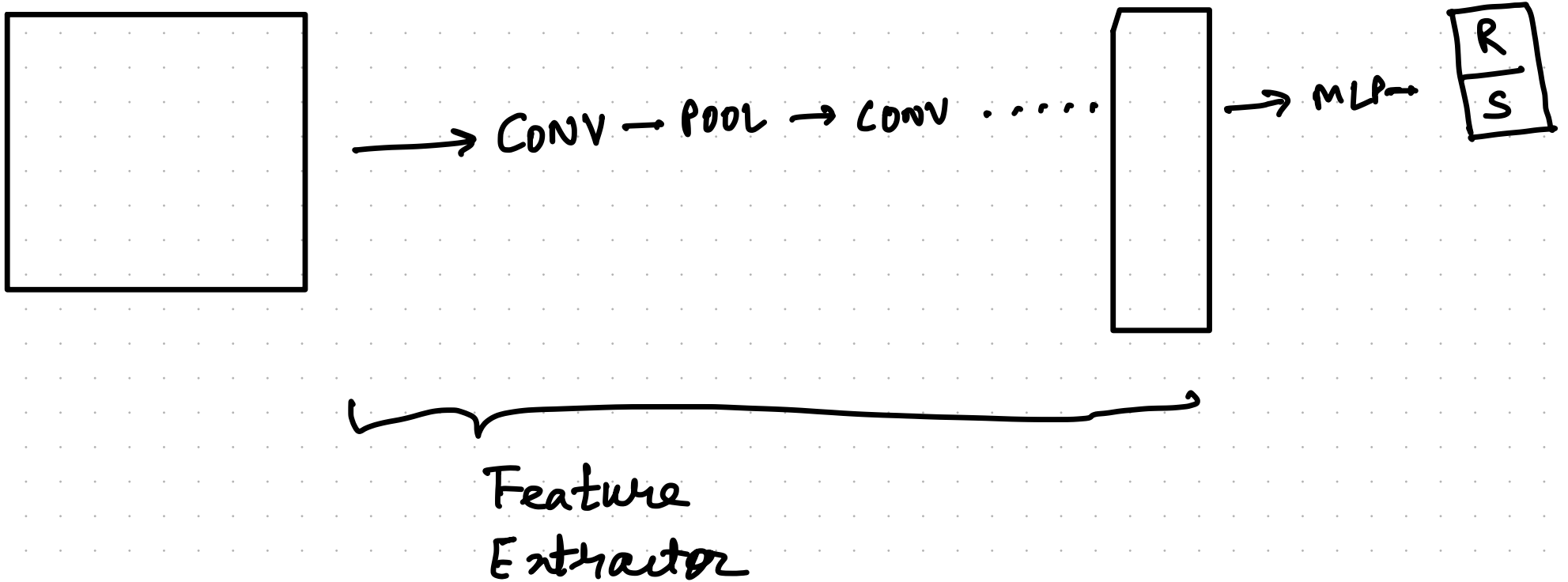
# Transfer Learning

- We now have our dataset (say R v/s S)



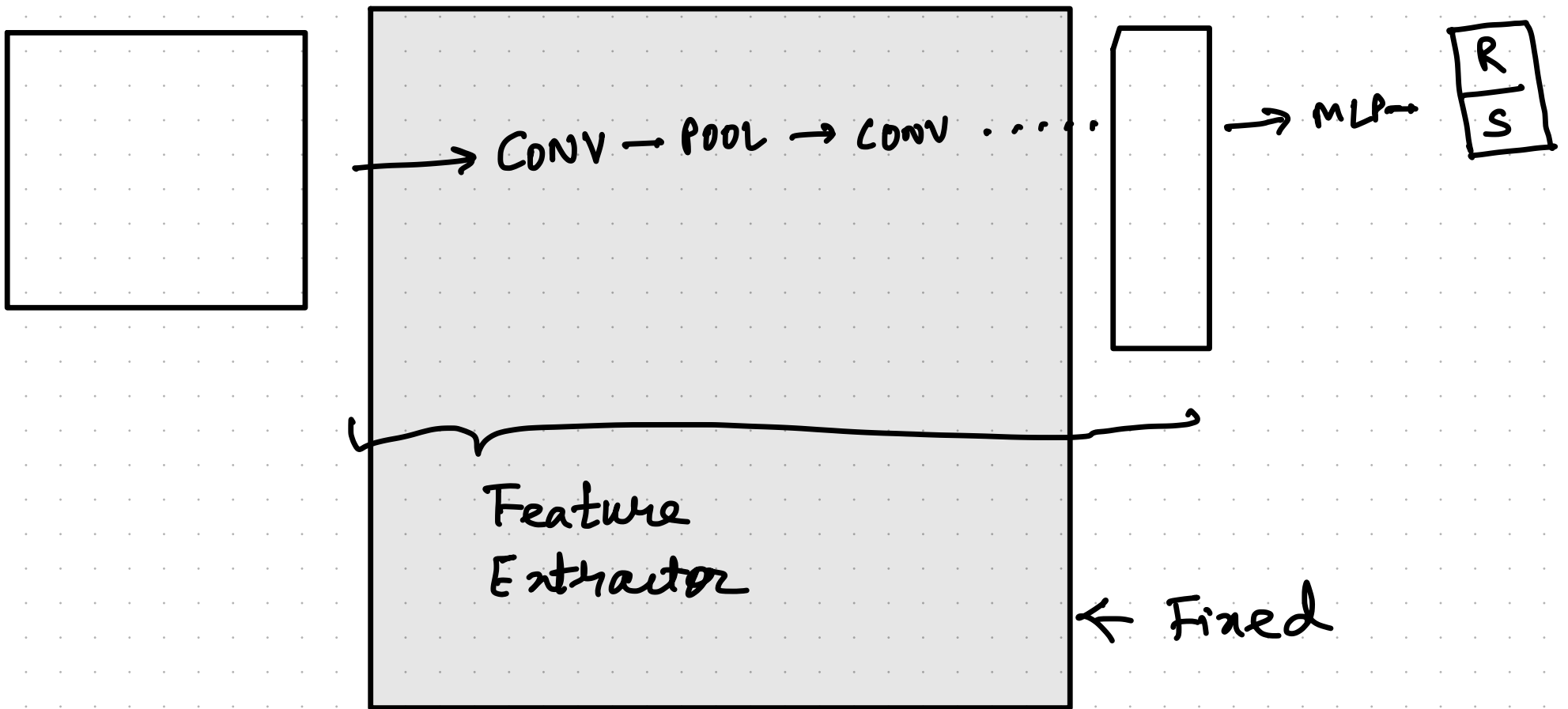
# Transfer Learning

- We now have our dataset (say R vs S)



# Transfer Learning

- We now have our dataset (say R vs S)



# Transfer Learning

- We now have our dataset (say R vs S)

