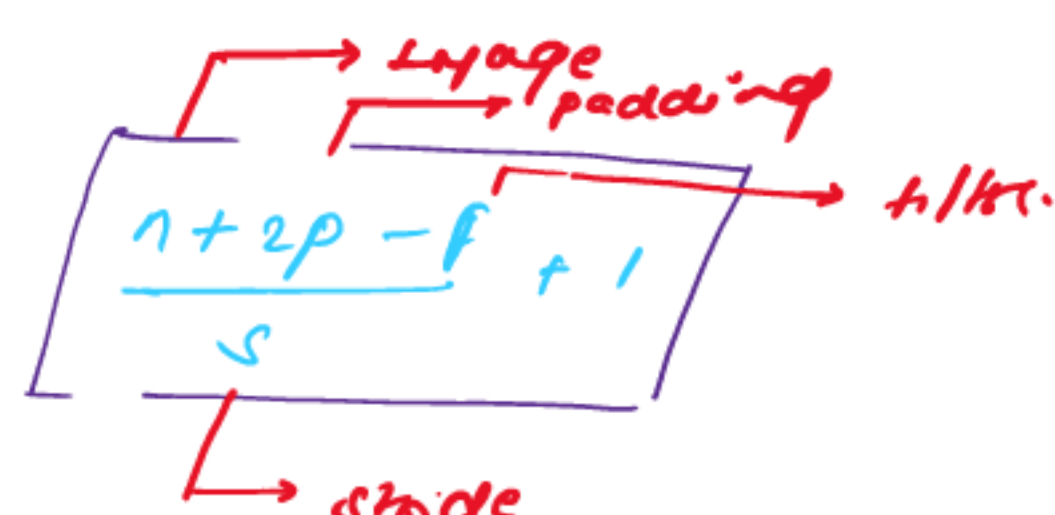


# Inception V3 -GoogleNet

06 November 2023

07:09

$$\begin{bmatrix} \quad \end{bmatrix}_{6 \times 6 \times 1} * \begin{bmatrix} \quad \end{bmatrix}_{1 \times 1 \times 1}$$



$$28 \times 28 \times 256$$

Example

Layer  $28 \times 28 \times 1$   
 f/fk  $5 \times 5$   
 no. f/fk 192

→ → →

Result  $28 \times 28 \times 192$   
 f/fk  $5 \times 5$   
 no. f/fk 32

→ → →

Result  $28 \times 28 \times 32$

Calculation complexity

$$5 \times 5 \times 192 \quad 28 \times 28 \times 32$$

$$1 \quad \uparrow \quad \checkmark$$

12 core

Images  $28 \times 28 \times 192$   
 f/fk  $1 \times 1$   
 no. f/fk 16

$1 \times 1 \times 192$   $28 \times 28 \times 16$

→ → →

24 core.

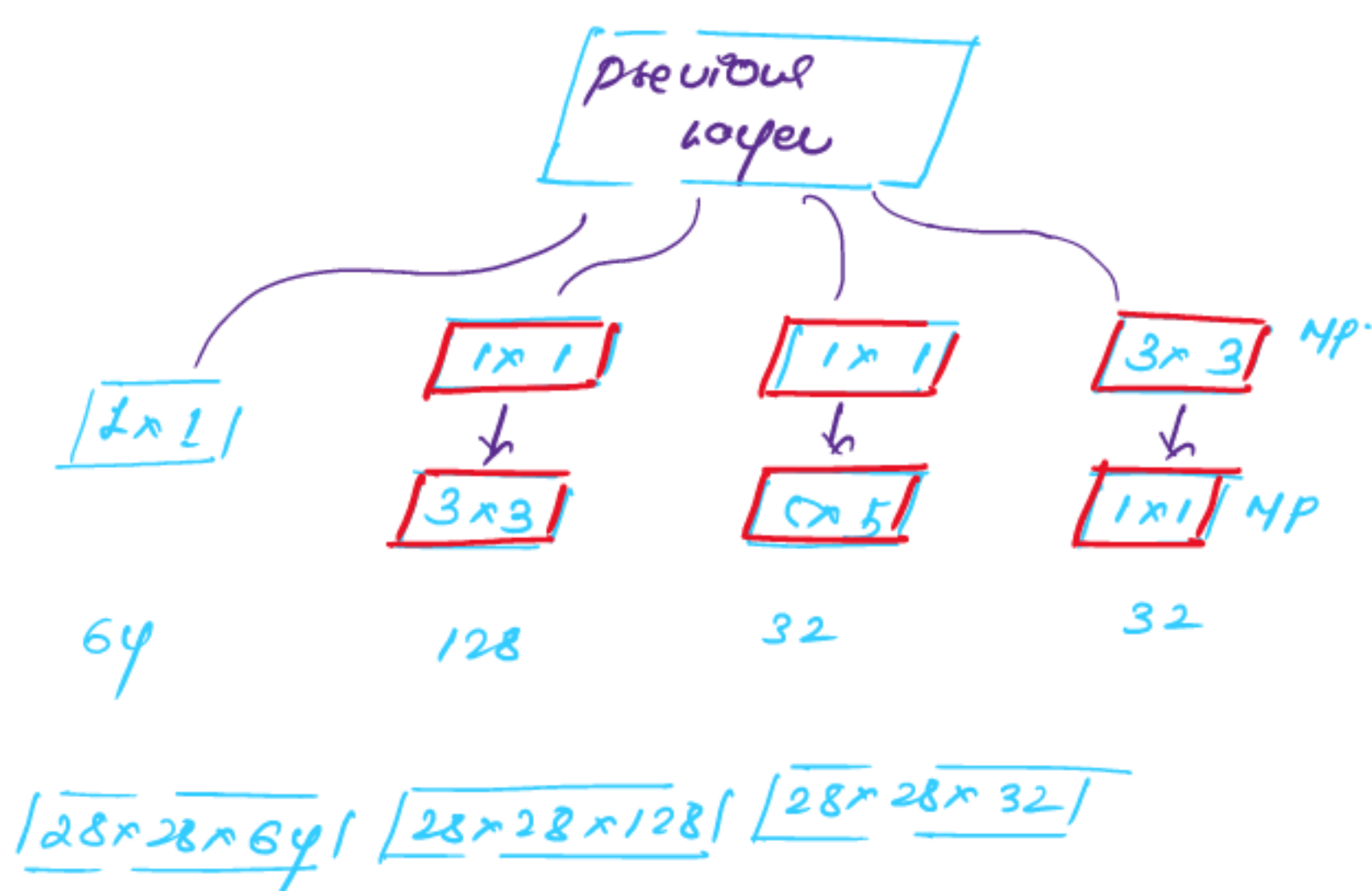
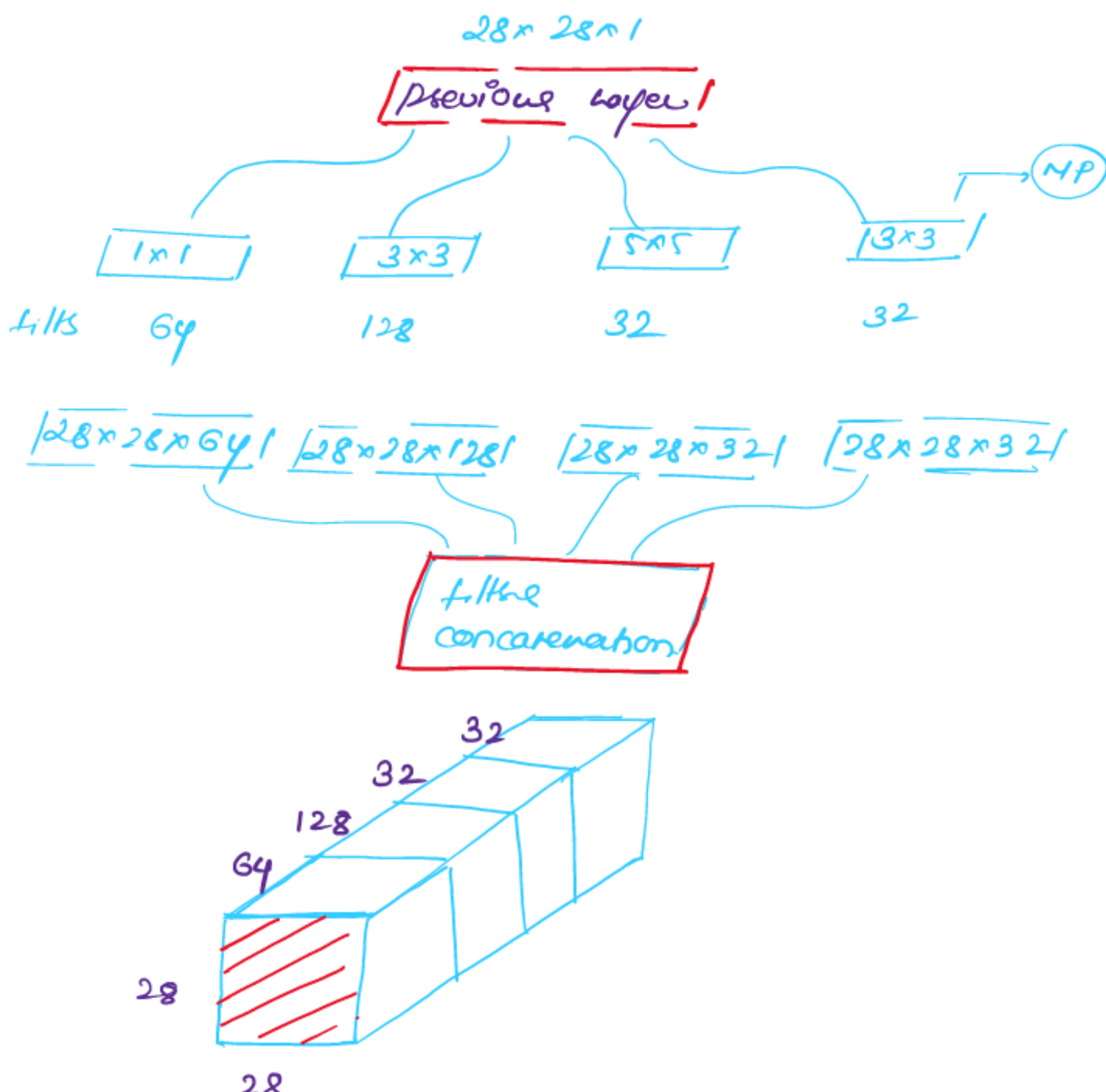
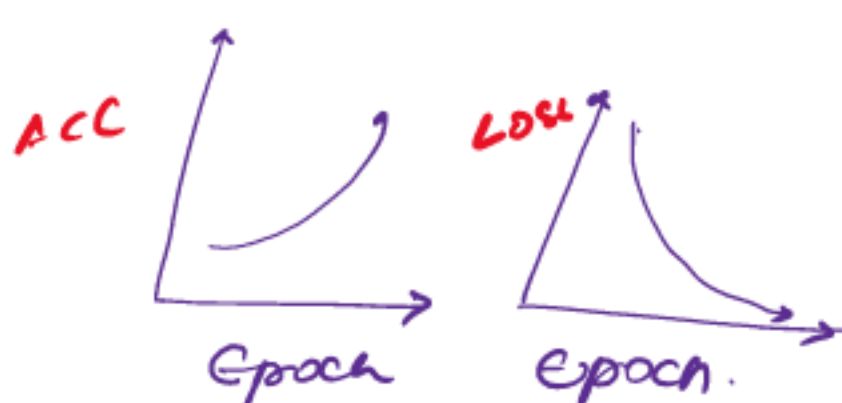
$28 \times 28 \times 16$  Result.  
 $5 \times 5$   
32

$$5 \times 5 \times 16 \times 28 \times 28 \times 32$$

100

→ → →

1 + 24 core  
= 1.24 core.



$$49916$$

528 745

7 160