

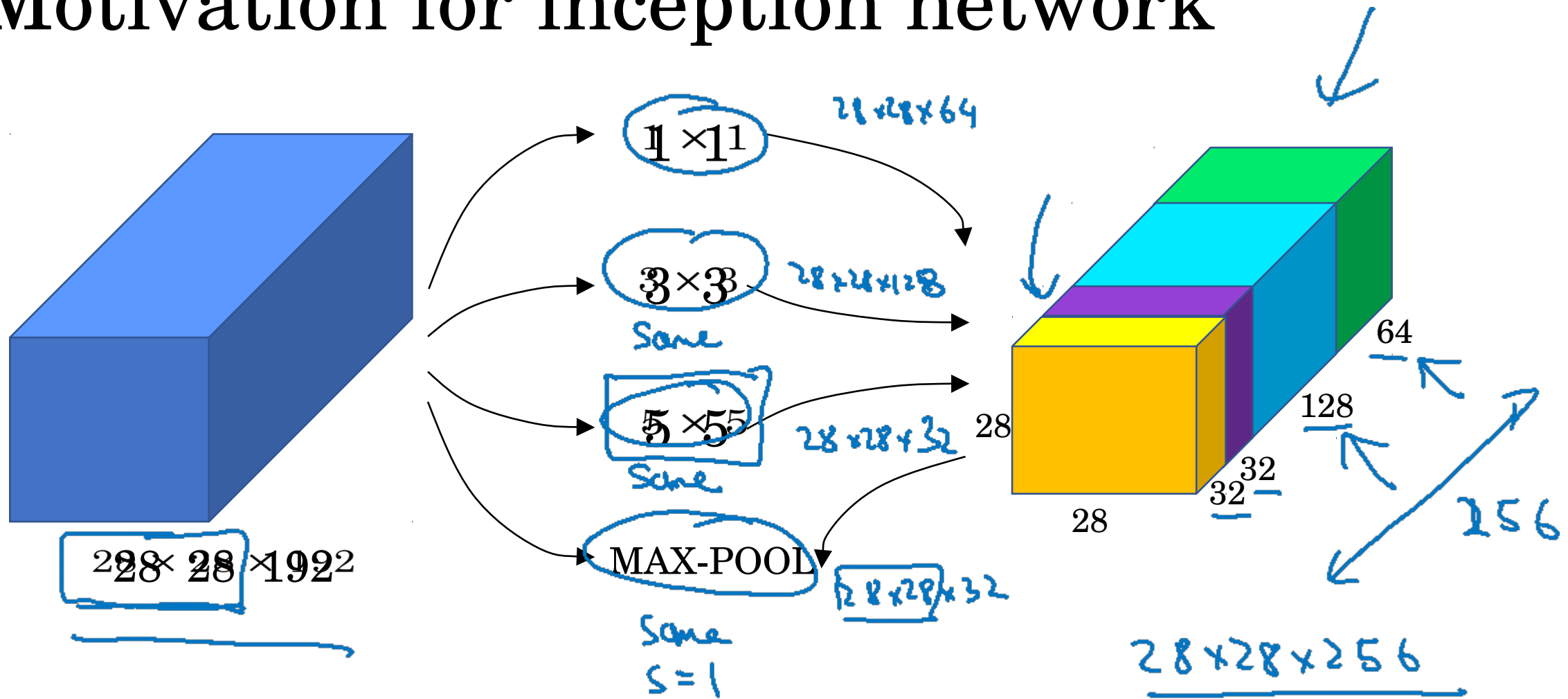


deeplearning.ai

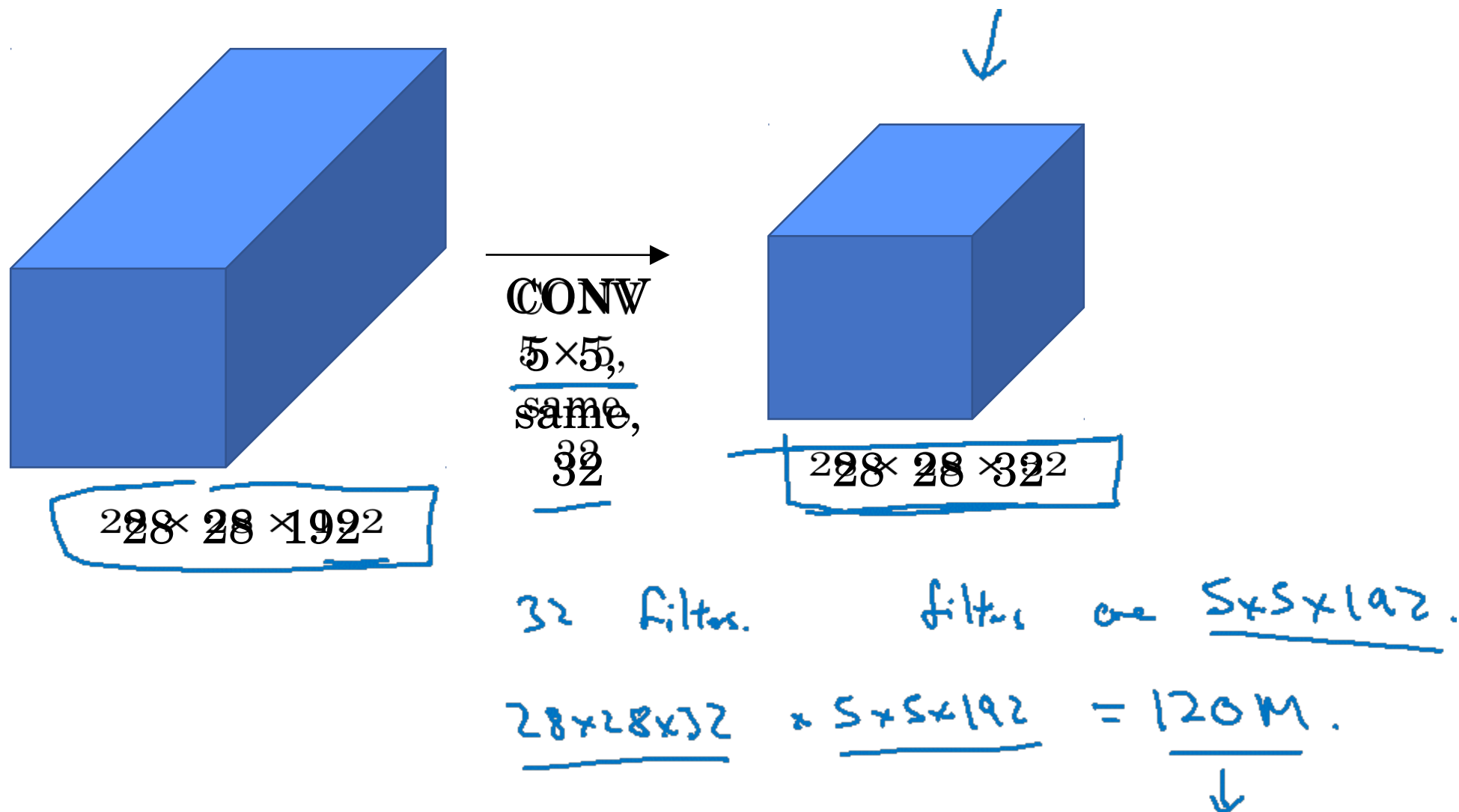
Case Studies

Inception
network
motivation

Motivation for inception network

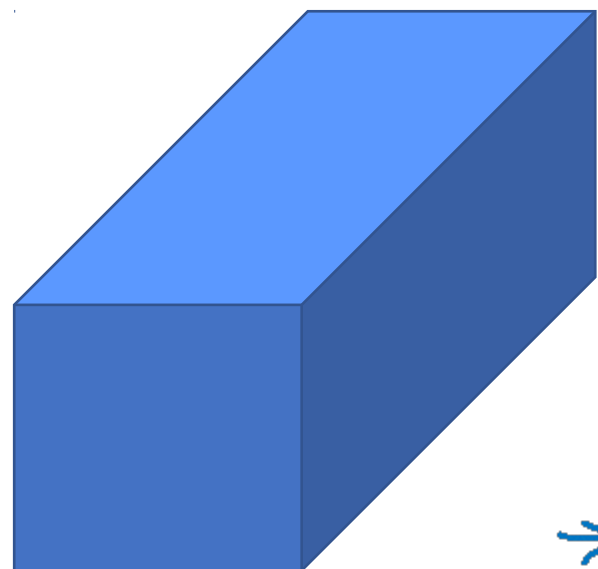


The problem of computational cost



Using 1x1 convolution

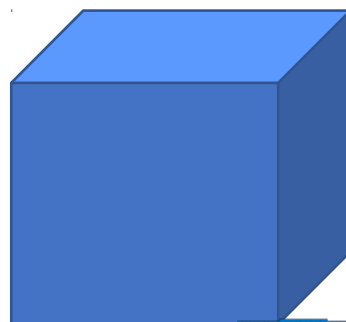
"bottleneck layer"



$28 \times 28 \times 192$

CONV
 1×1 ,
 $\rightarrow 16,$
 $\rightarrow 1 \times 1 \times 192$

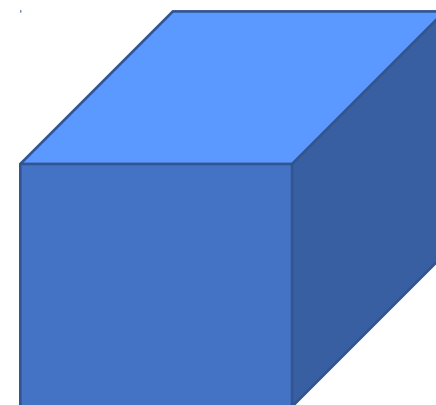
$$28 \times 28 \times 16 \times 192 = 2.4M$$



$28 \times 28 \times 16$

CONV
 5×5 ,
 $32,$
 $5 \times 5 \times 16$

$$28 \times 28 \times 32 \times 5 \times 5 \times 16 = 10.0M$$



$28 \times 28 \times 32$

120M \rightarrow 12.4M