

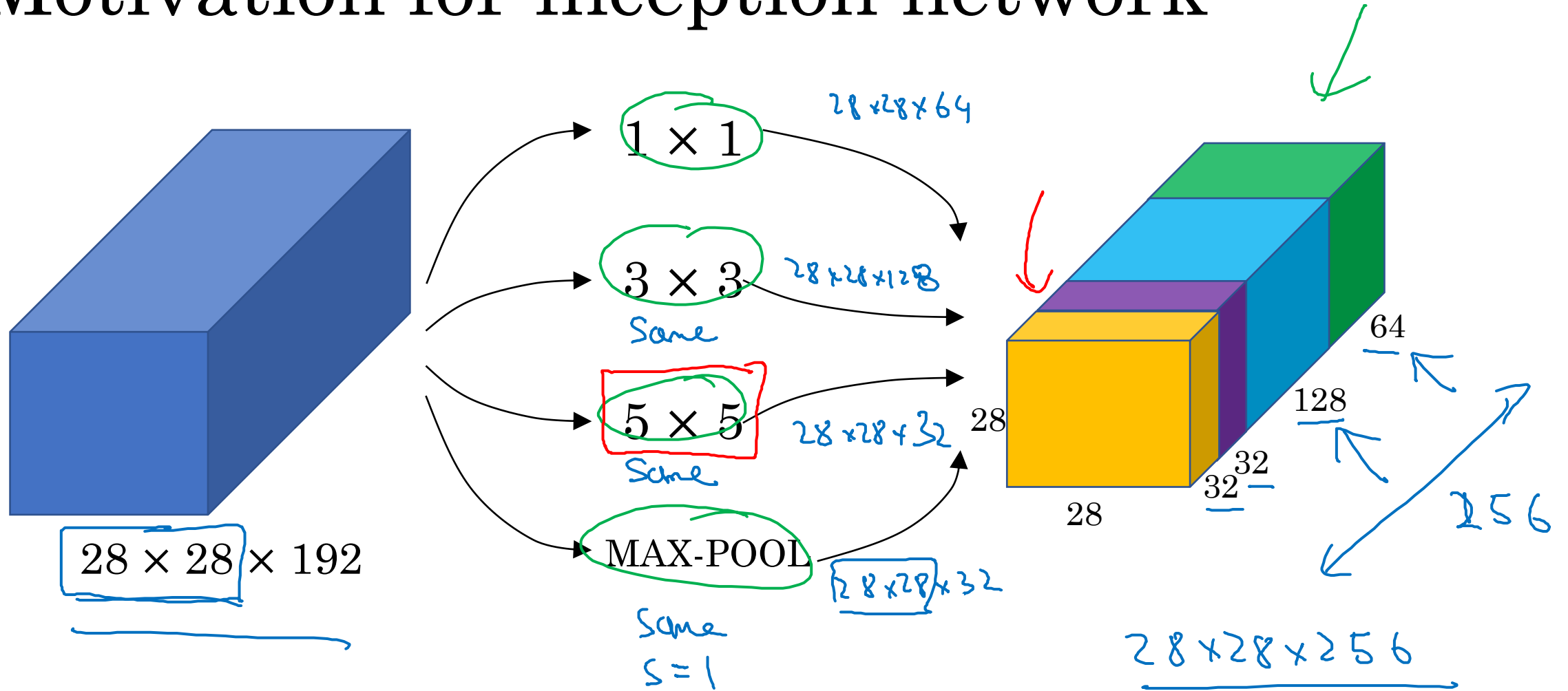


deeplearning.ai

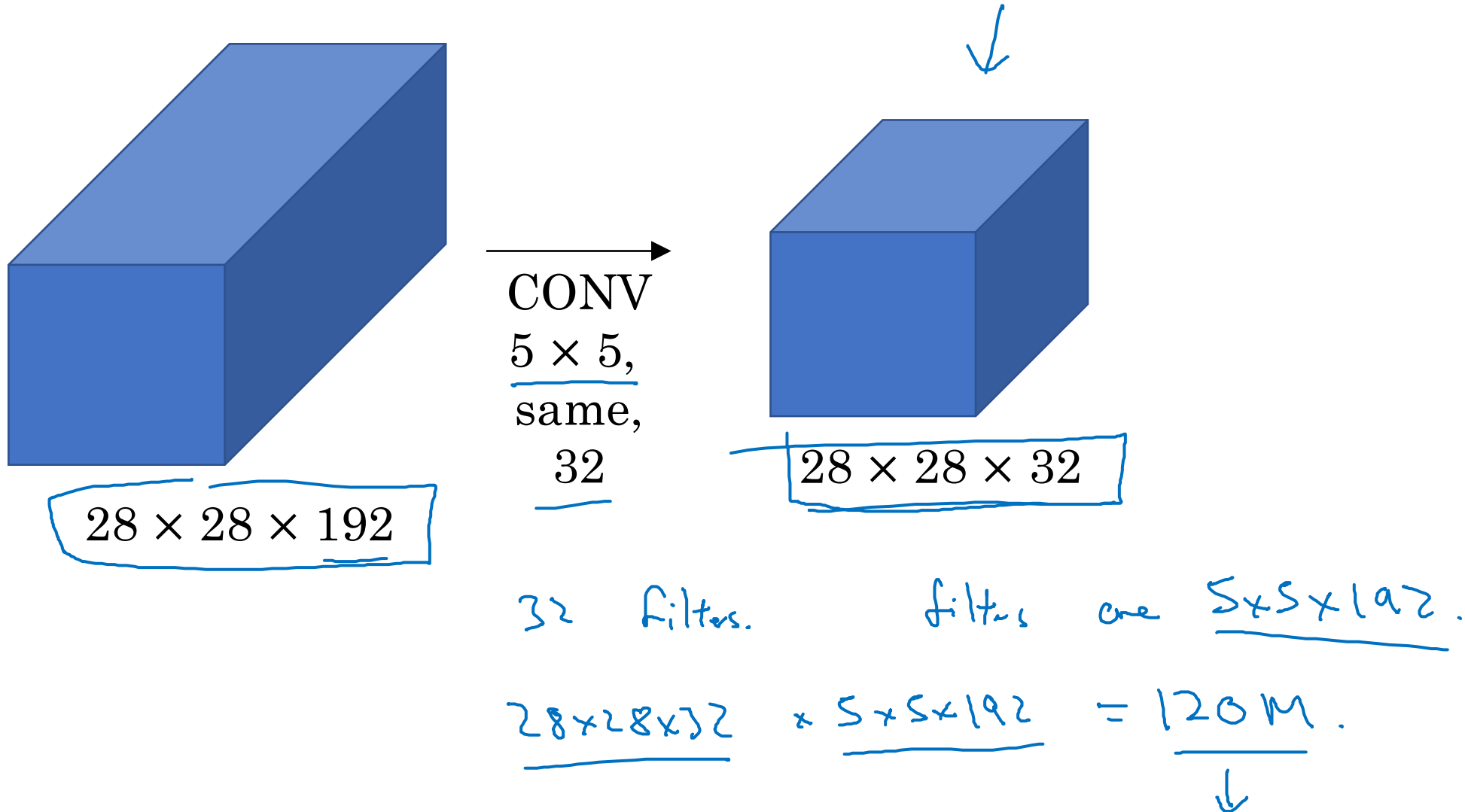
Case Studies

Inception network motivation

Motivation for inception network

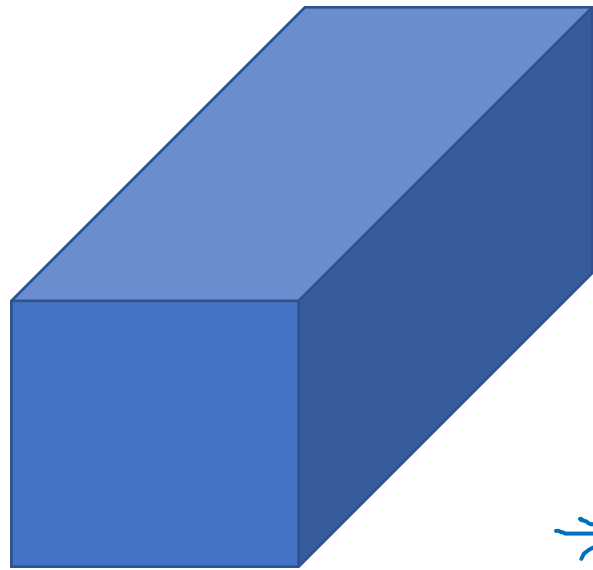
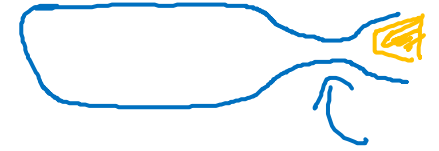


The problem of computational cost



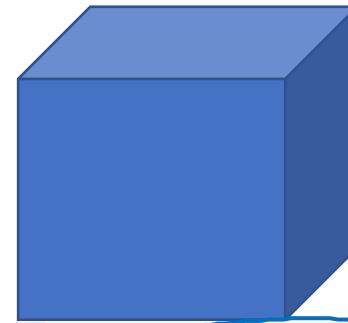
Using 1×1 convolution

"bottleneck layer"



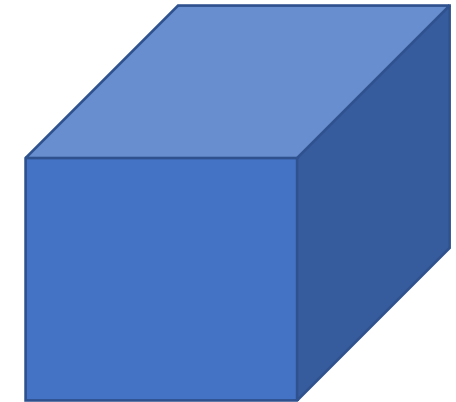
$$28 \times 28 \times 192$$

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



$$28 \times 28 \times 16$$

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



$$28 \times 28 \times 32$$

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

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

$$12.4M$$

$$120M \rightarrow$$