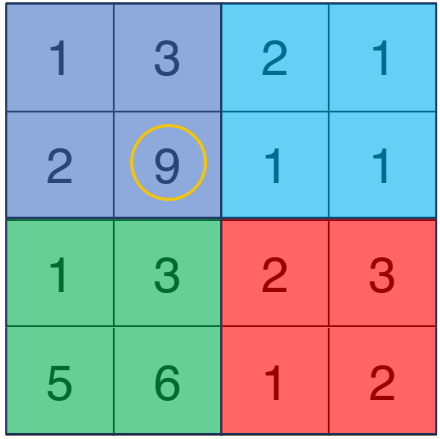
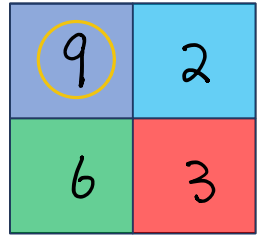
deeplearning.ai

Convolutional Neural Networks

Pooling layers

Pooling layer: Max pooling





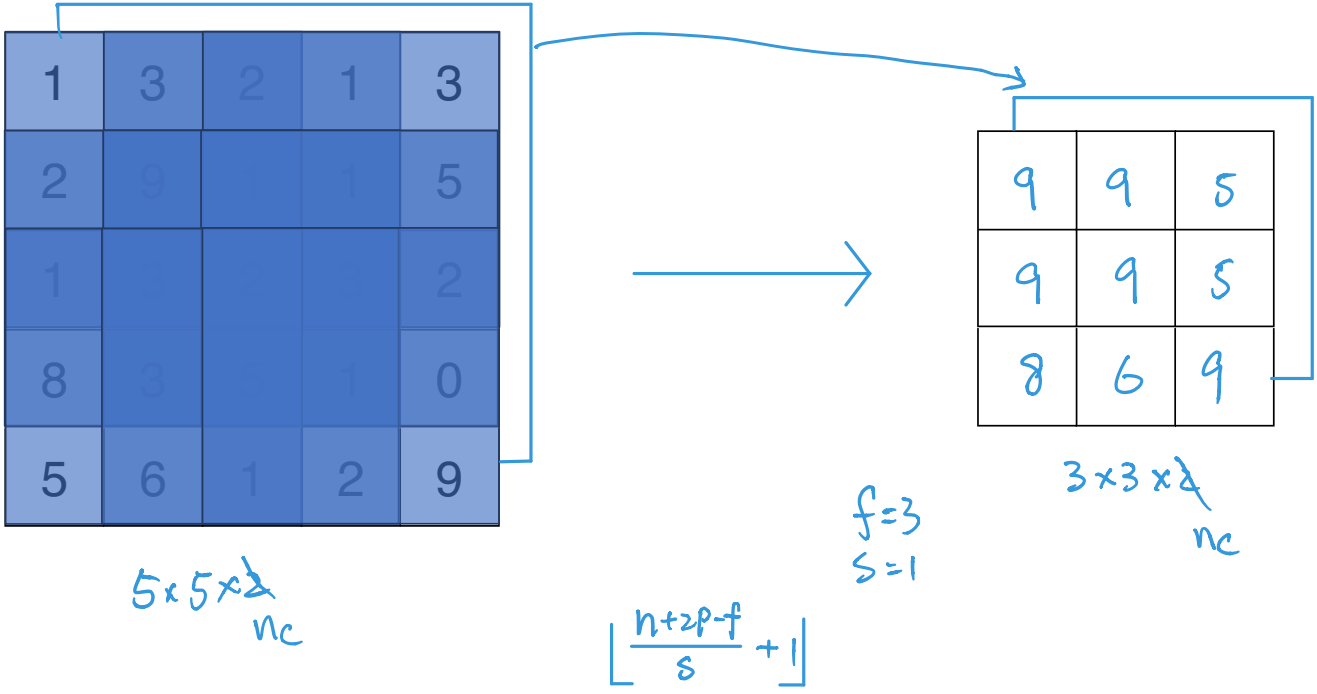
Hyperparameters:

$f = 2$

$s = 2$.

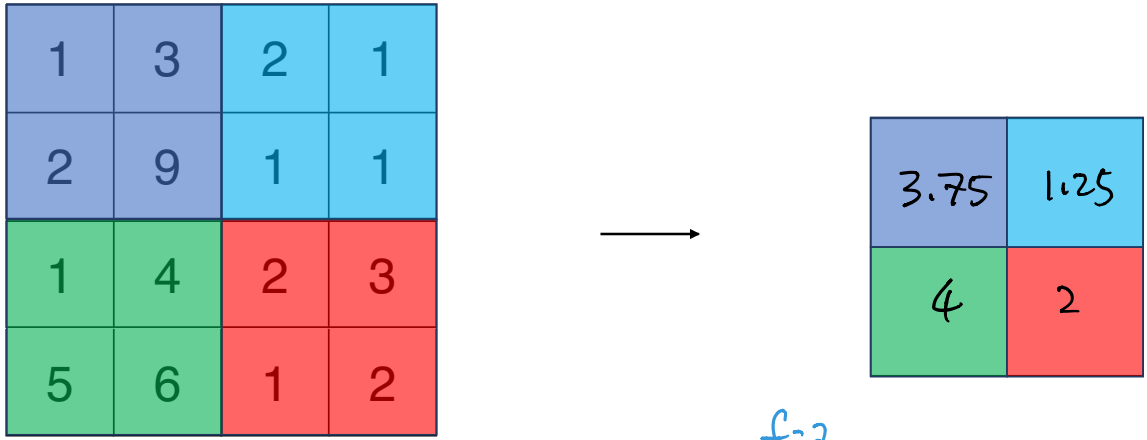
No parameters !

Pooling layer: Max pooling



Andrew Ng

Pooling layer: Average pooling



Summary of pooling

Hyperparameters:

f : filter size

s : stride

Max or average pooling

$f=2, s=2$

$f=2, s=3$

$n_H \times n_W \times n_C$

$$\left\lfloor \frac{n_H - f}{s} + 1 \right\rfloor \times \left\lfloor \frac{n_W - f}{s} + 1 \right\rfloor \times n_C$$

→ p: padding (rarely used for max pooling)

No parameters to learn !