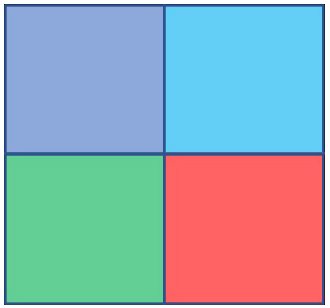
deeplearning.ai

Convolutional Neural Networks

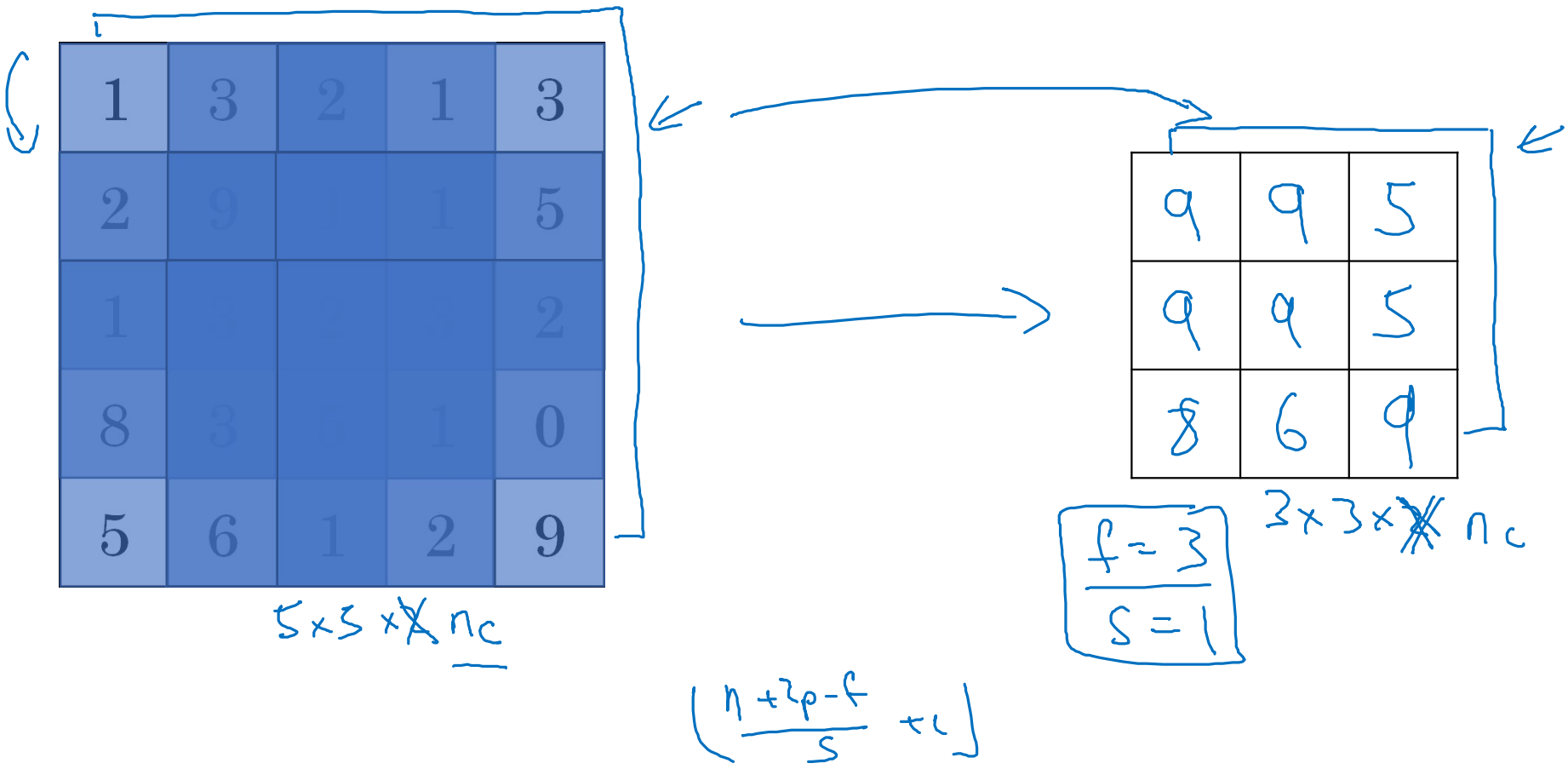
Pooling layers

Pooling layer: Max pooling

1	3	2	1
2	9	1	1
1	3	2	3
5	6	1	2



Pooling layer: Max pooling



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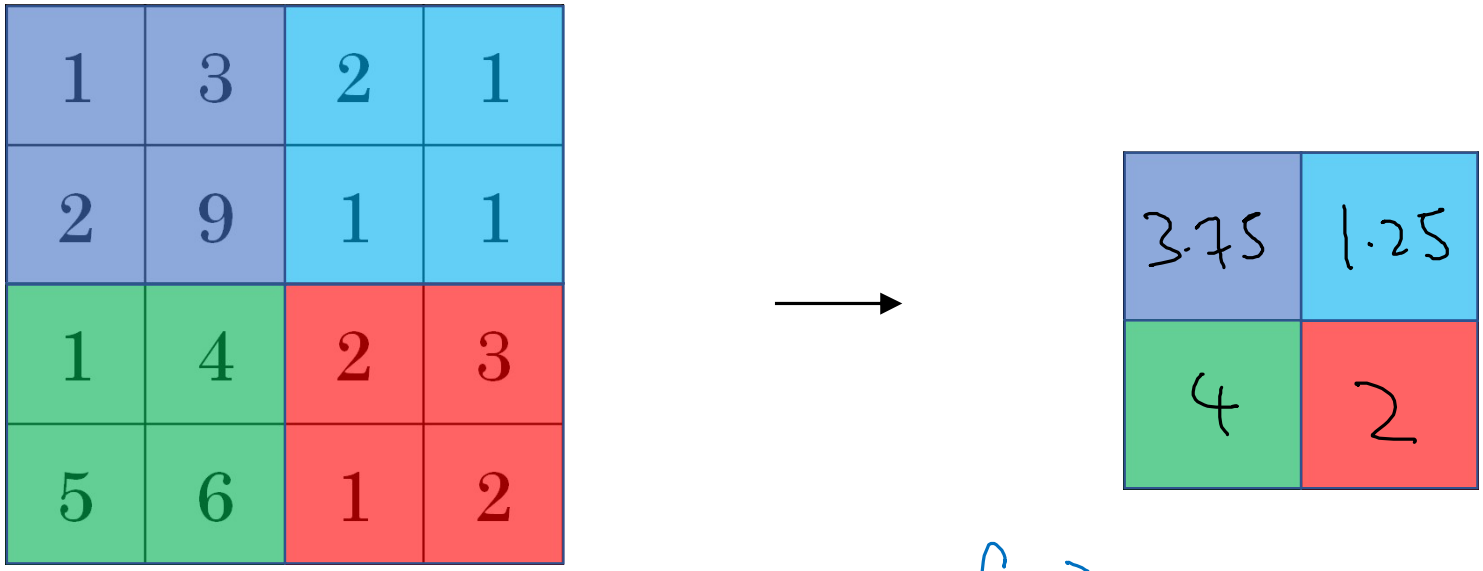
Pooling layer: Average pooling



Summary of pooling

Hyperparameters:

f : filter size

s : stride

Max or average pooling

f=2, s=2

f=3, s=2

$n_H \times n_w \times n_c$

$\downarrow$

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

$\times n_c$

~~$\Rightarrow$ p: padding.~~

No parameters to learn!

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