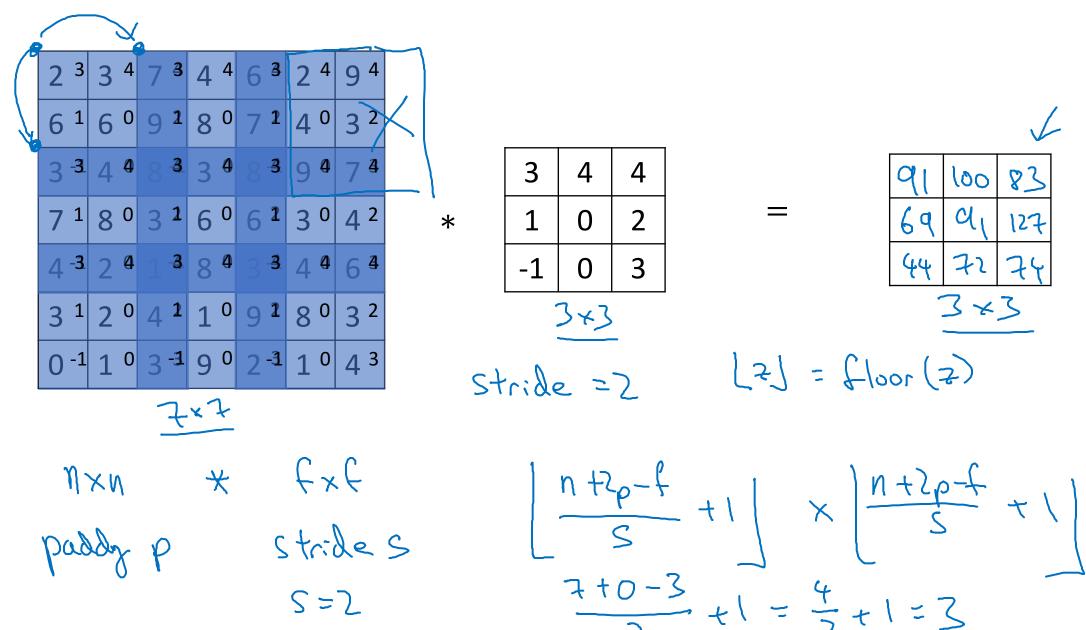


Convolutional Neural Networks

Strided convolutions

Strided convolution



Andrew Ng

Summary of convolutions

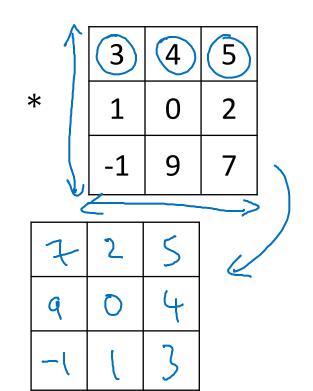
$$n \times n$$
 image $f \times f$ filter padding p stride s

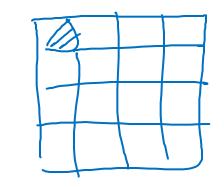
$$\left[\frac{n+2p-f}{s}+1\right] \times \left[\frac{n+2p-f}{s}+1\right]$$

Technical note on <u>cross-correlation</u> vs. convolution

Convolution in math textbook:

	\bigcirc				
2	3	7 ⁵	4	6	2
69	60	94	8	7	4
3	4	83	3	8	9
7	8	3	6	6	3
4	2	1	8	3	4
3	2	4	1	9	8





$$(A \times B) \times C = A \times (B \times C)$$