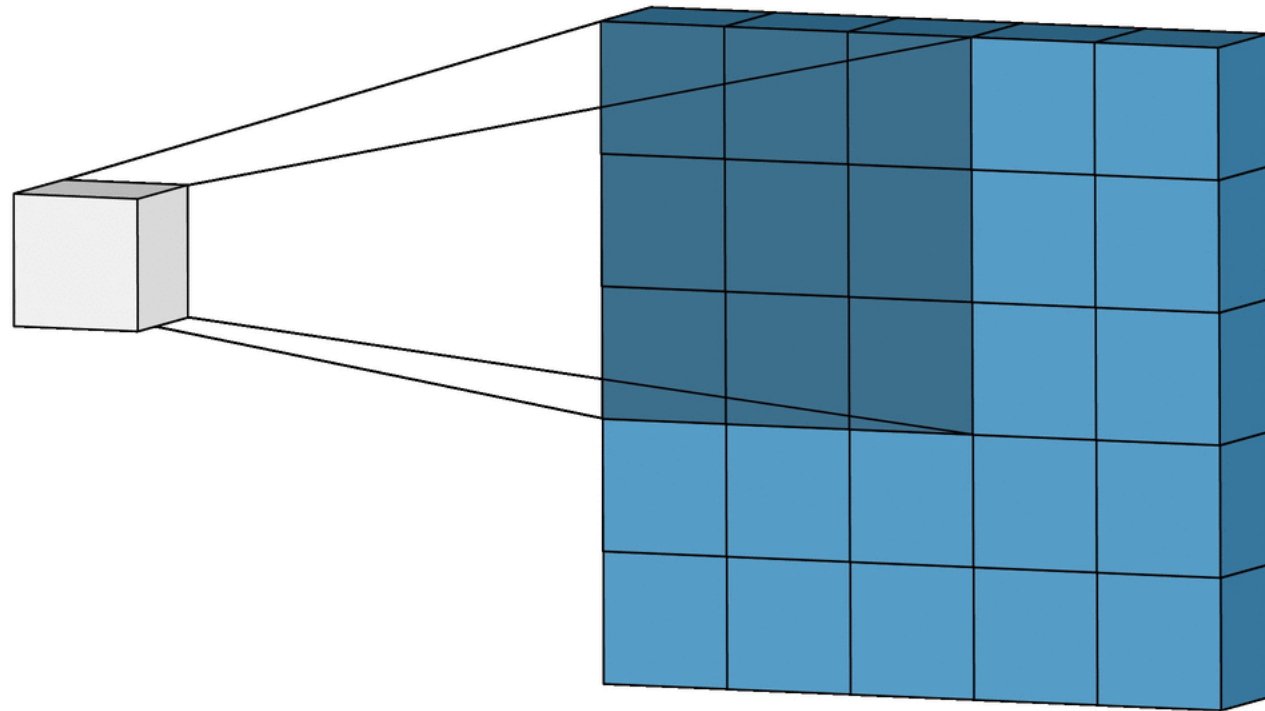


# Intuitive Understanding of Convolutional Layers

# Sliding a filter/kernel over a matrix

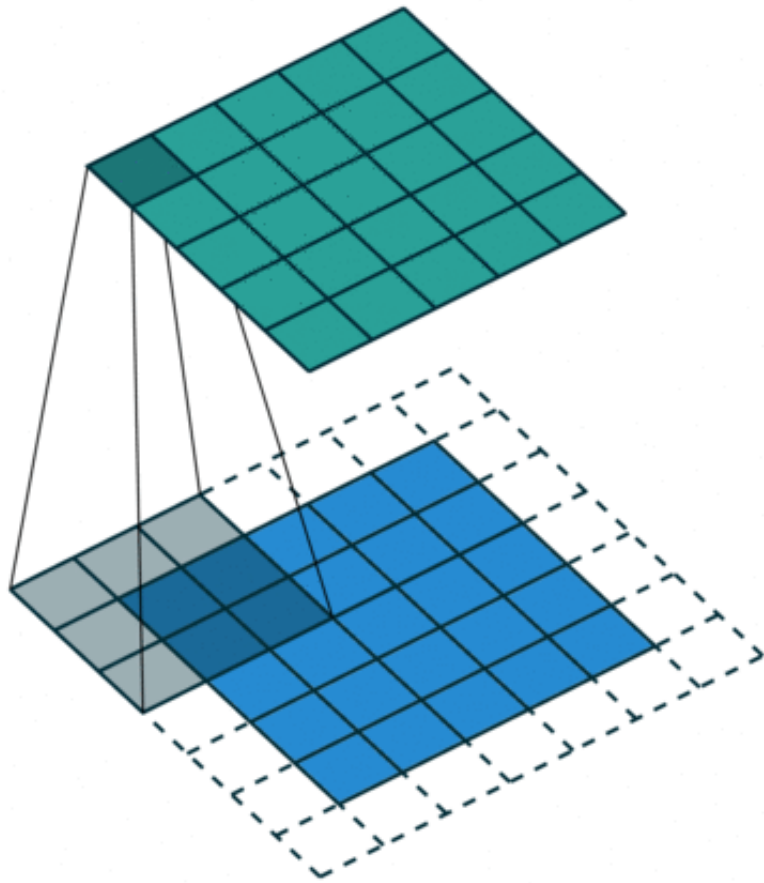


# Filters as Matrices Themselves

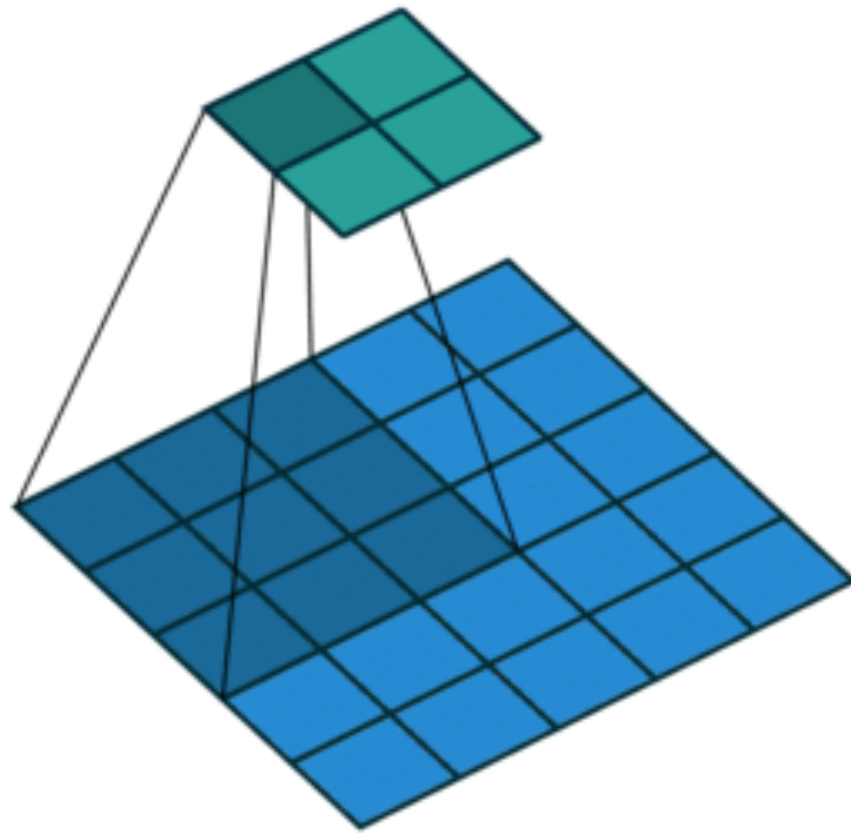
$3_0$	$3_1$	$2_2$	1	0
$0_2$	$0_2$	$1_0$	3	1
$3_0$	$1_1$	$2_2$	2	3
2	0	0	2	2
2	0	0	0	1

12.0	12.0	17.0
10.0	17.0	19.0
9.0	6.0	14.0

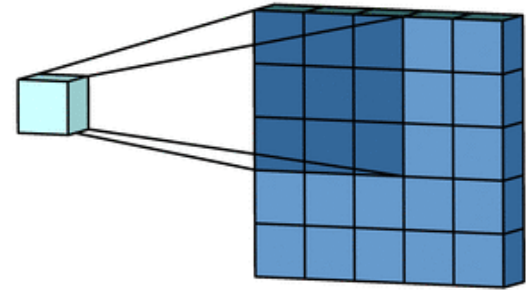
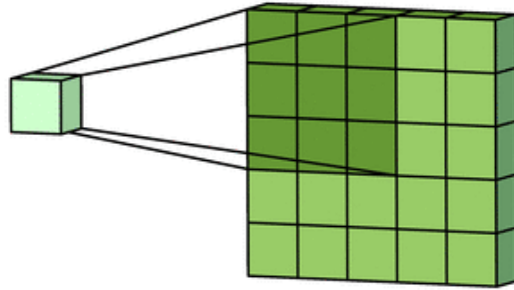
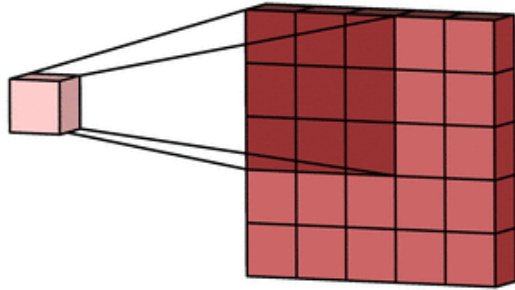
# Padding



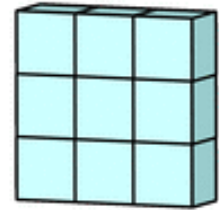
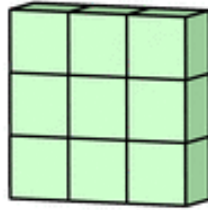
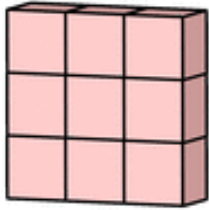
# Strides



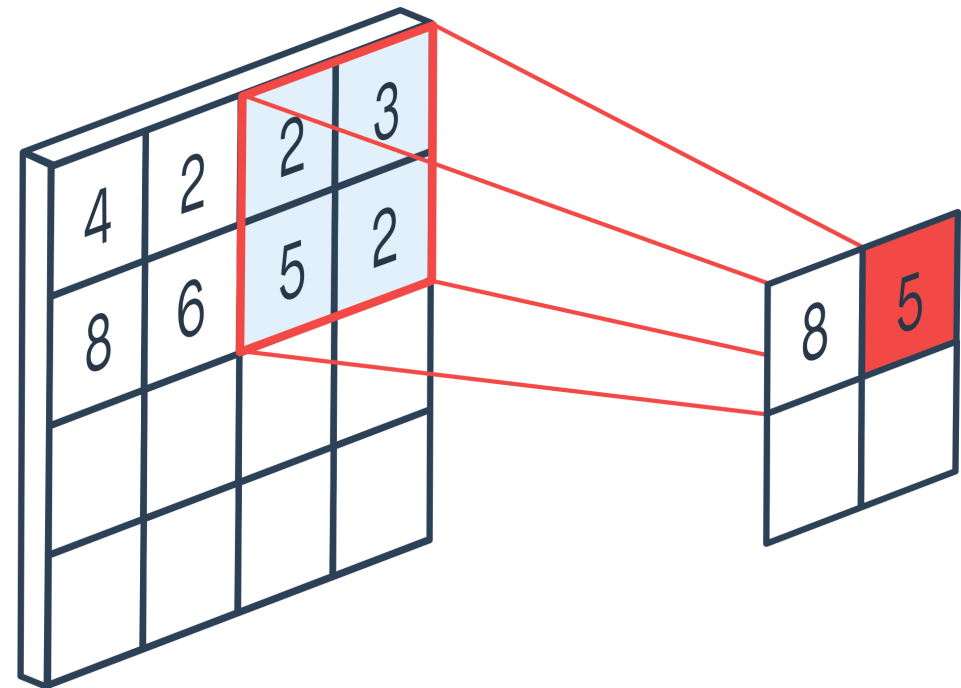
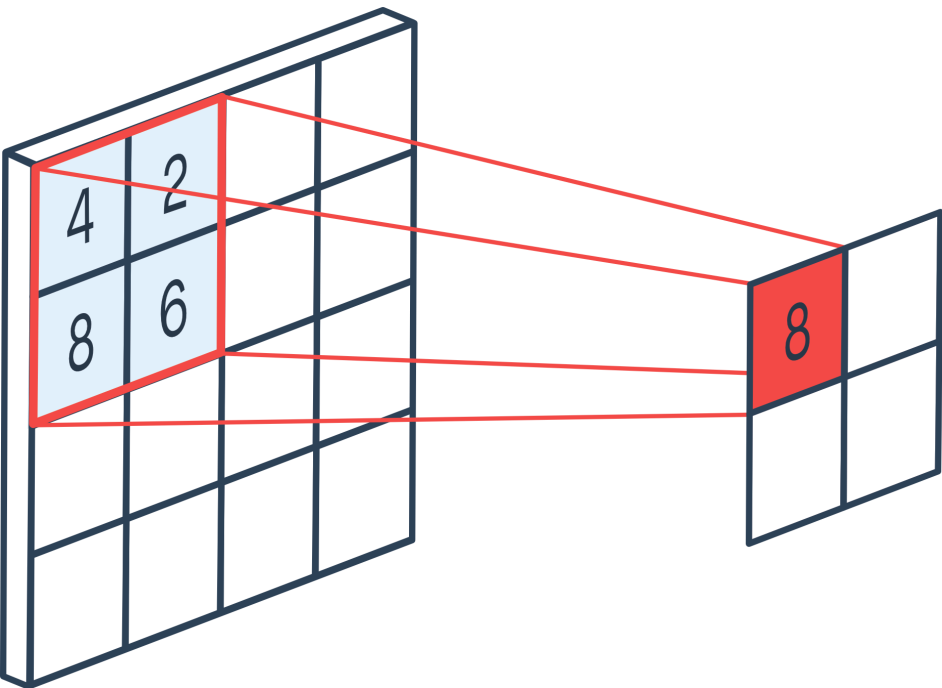
# Convolutions Over Images (3 Channels) - I



# Convolutions Over Images (3 Channels) -II



# Pooling





# Pooling

Image Matrix

<b>2</b>	1	3	1
1	0	1	<b>4</b>
0	6	<b>9</b>	5
<b>7</b>	1	4	1

Max Pool

<b>2</b>	<b>4</b>
<b>7</b>	<b>9</b>

# Generic Convolutional Neural Network

