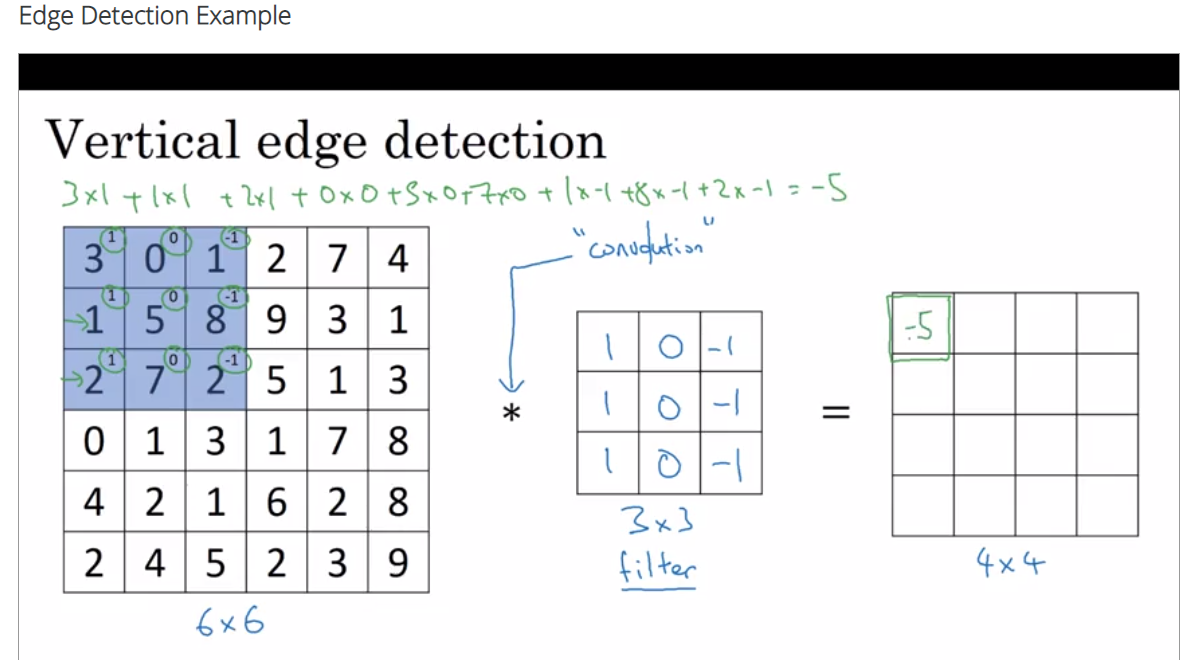
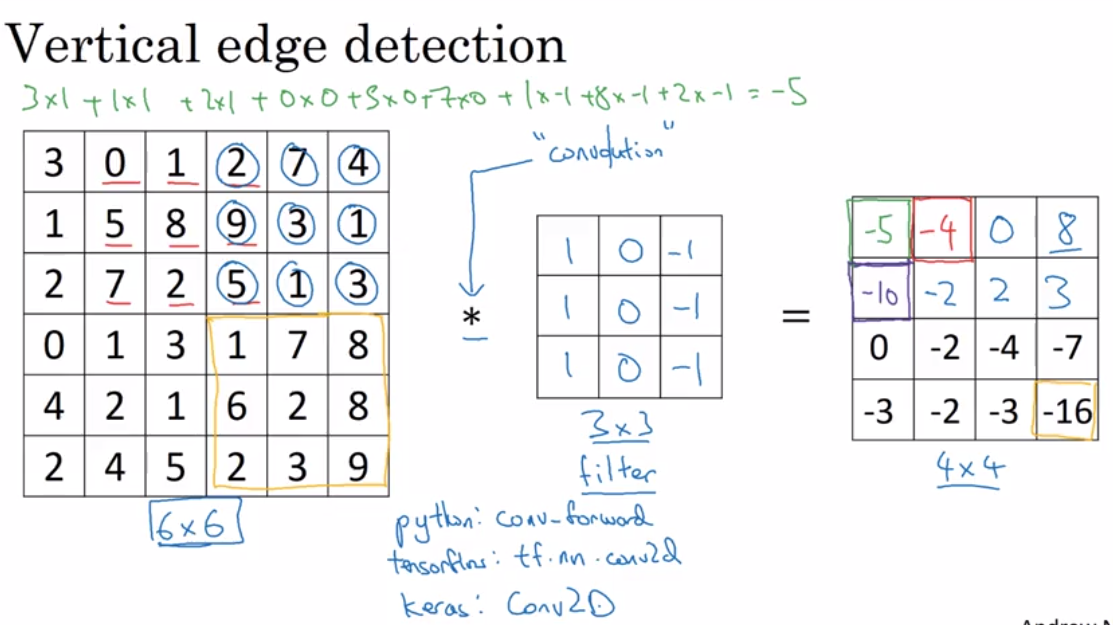
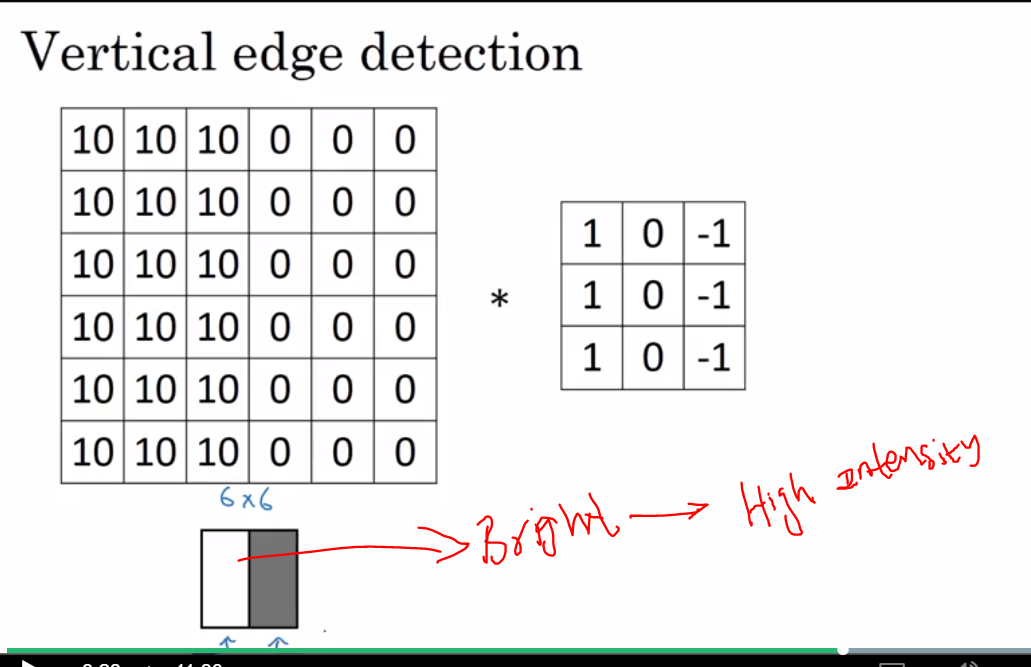


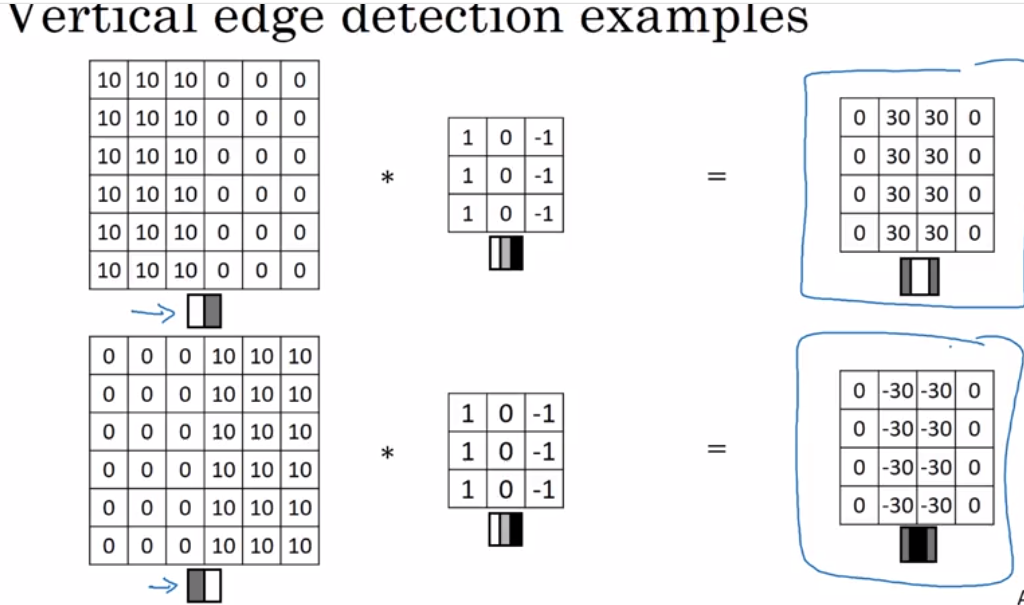
This is without conv NN -----🡪so we have 1 billion params to compute if we go normal NN procedure

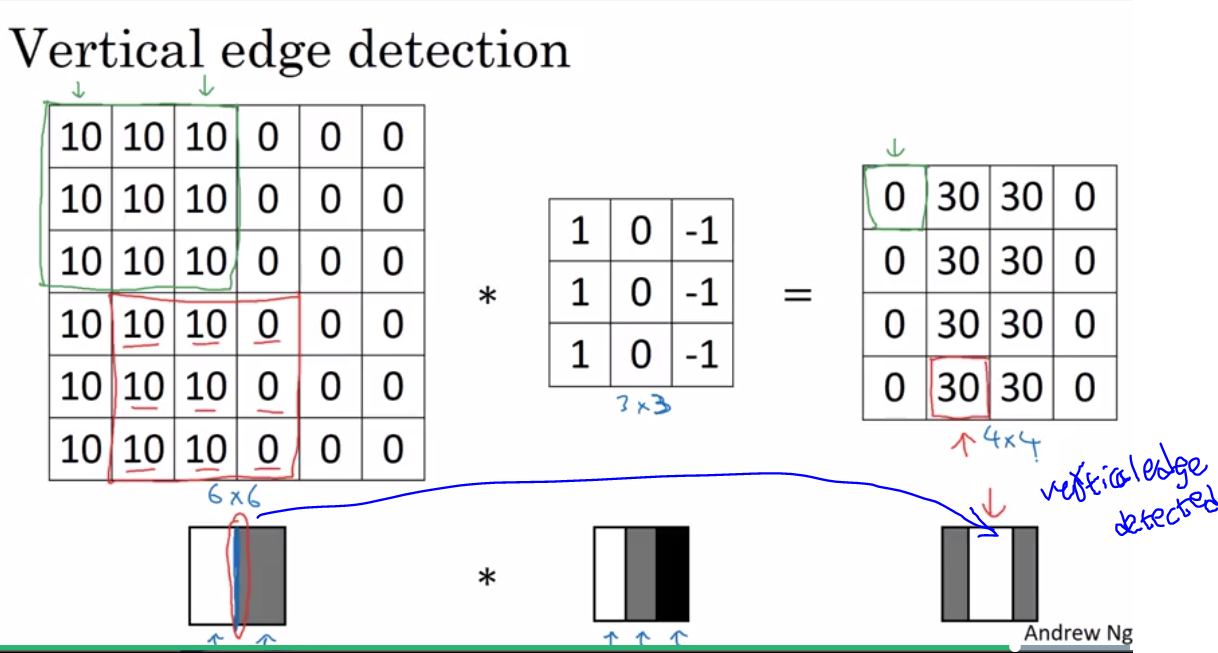
**CONVOLUTION**:

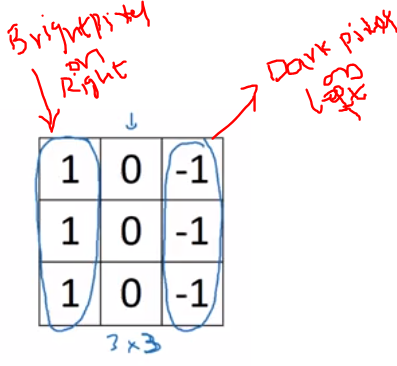


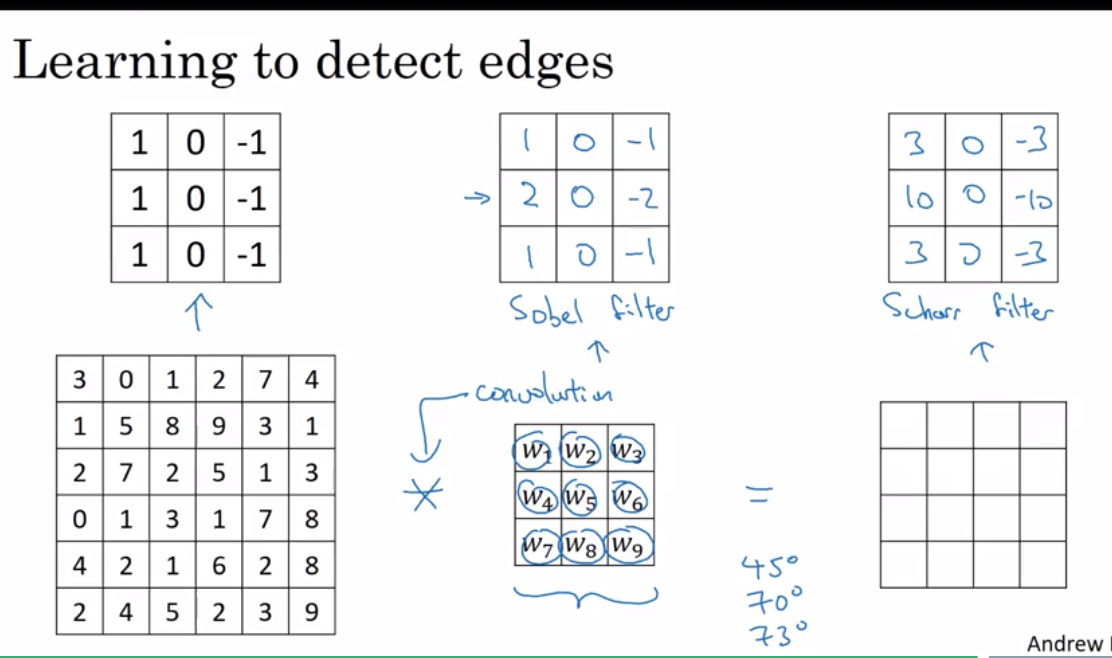








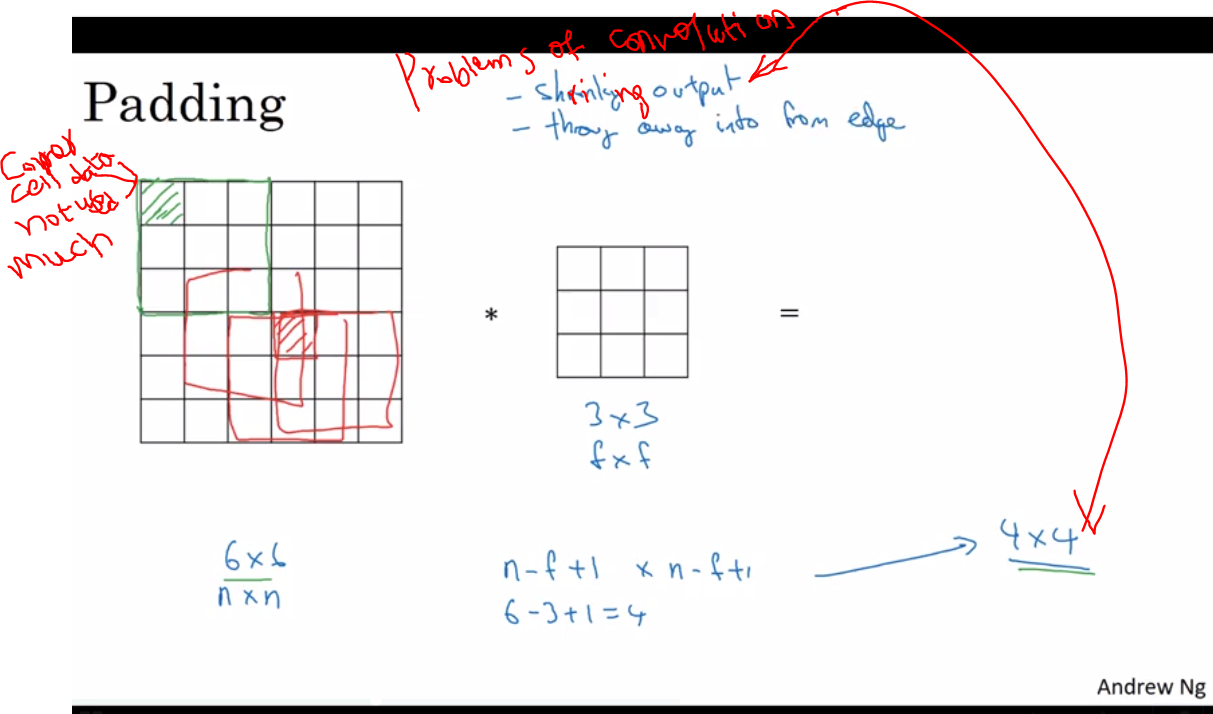


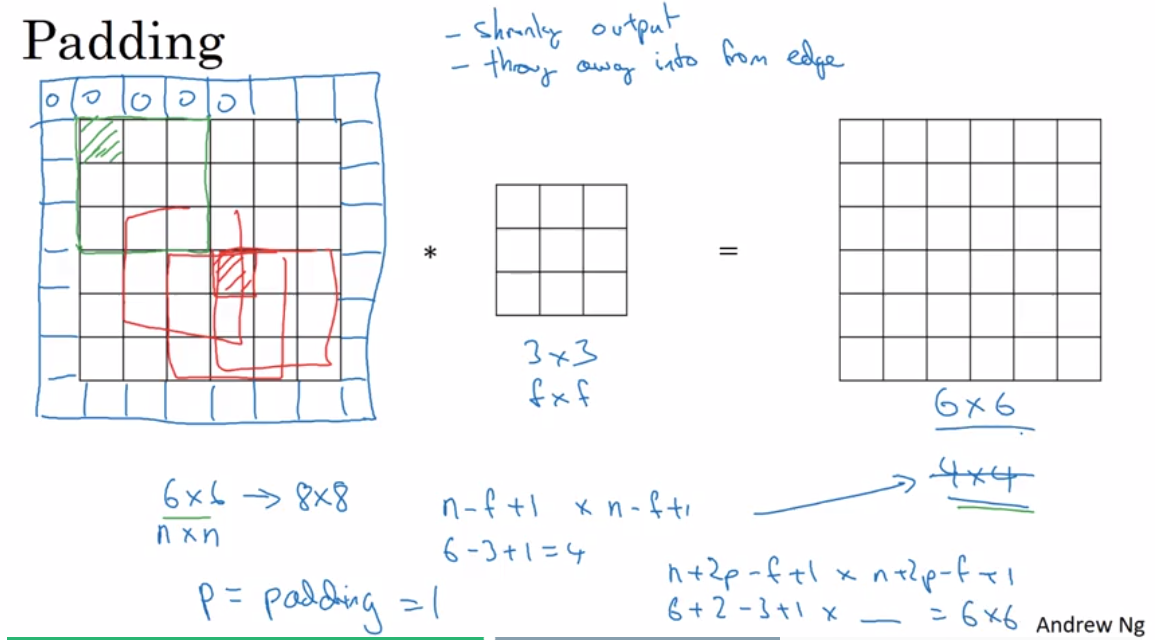


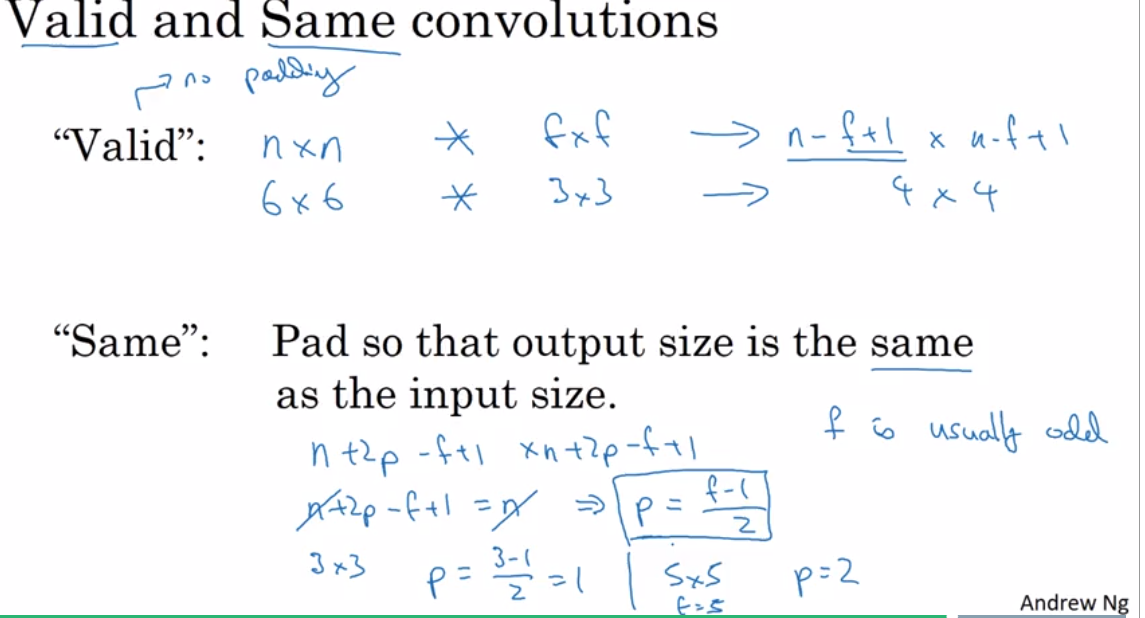
45,70,73 dgeree orientation of image can be detetcted by selecring proper w1 to w9 of kernel

**Note: in CNN these w1 to w9 weights we need to learn using Back propagation**

**PADDING:**

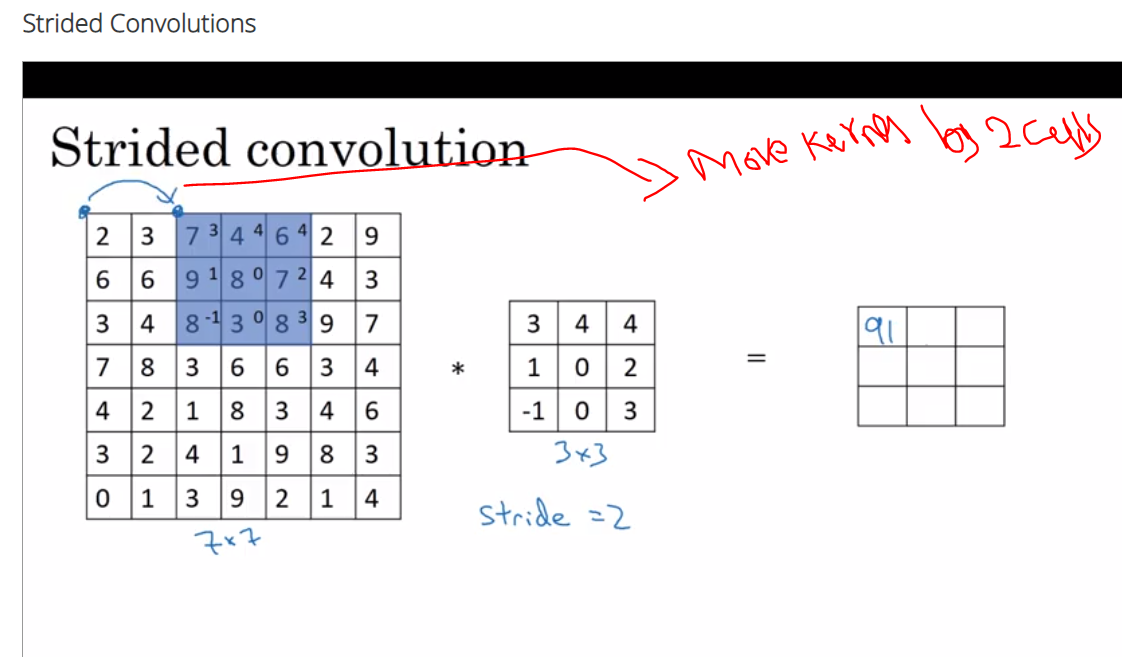


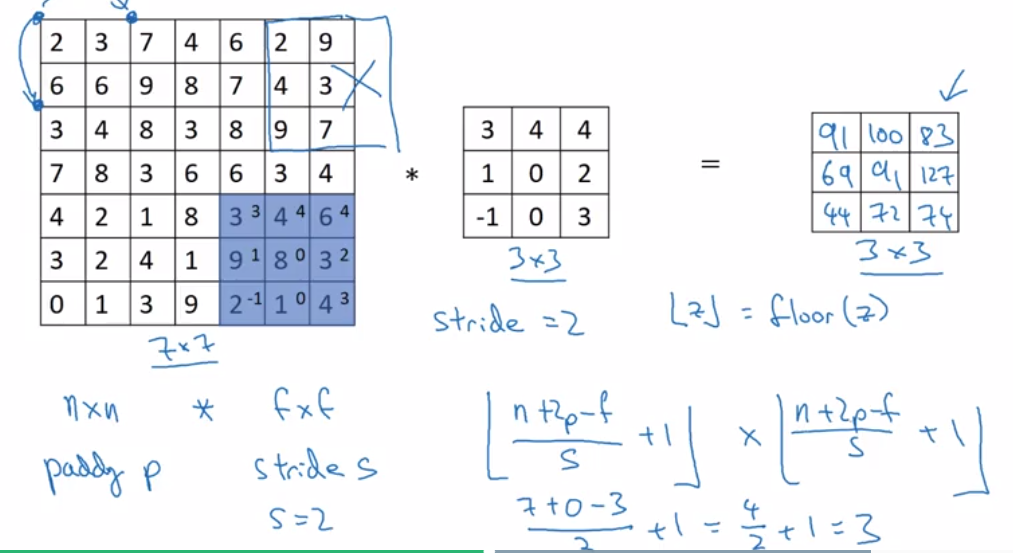


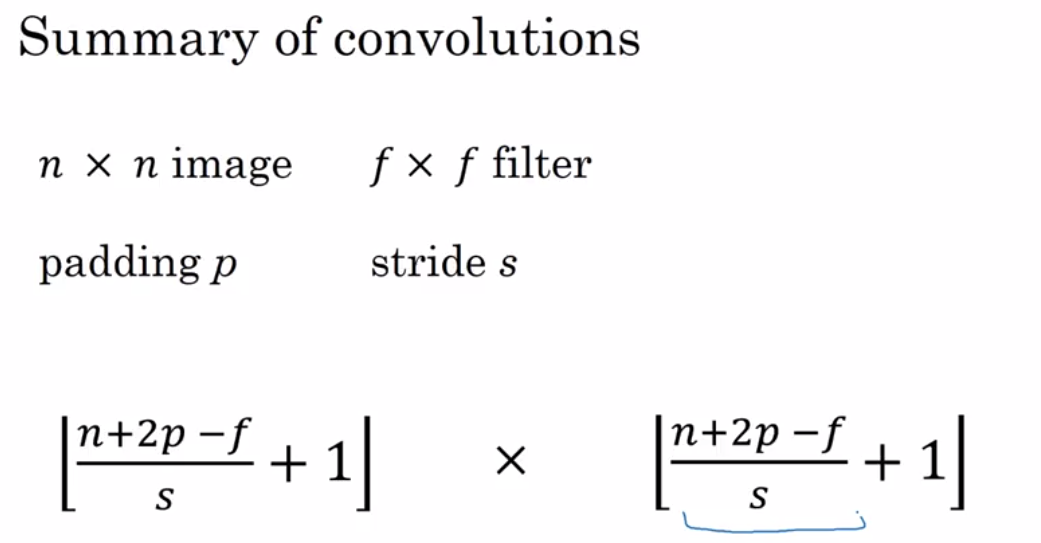


**If P=0 ------🡪 don’t pad ,then you may loose data for each conv**

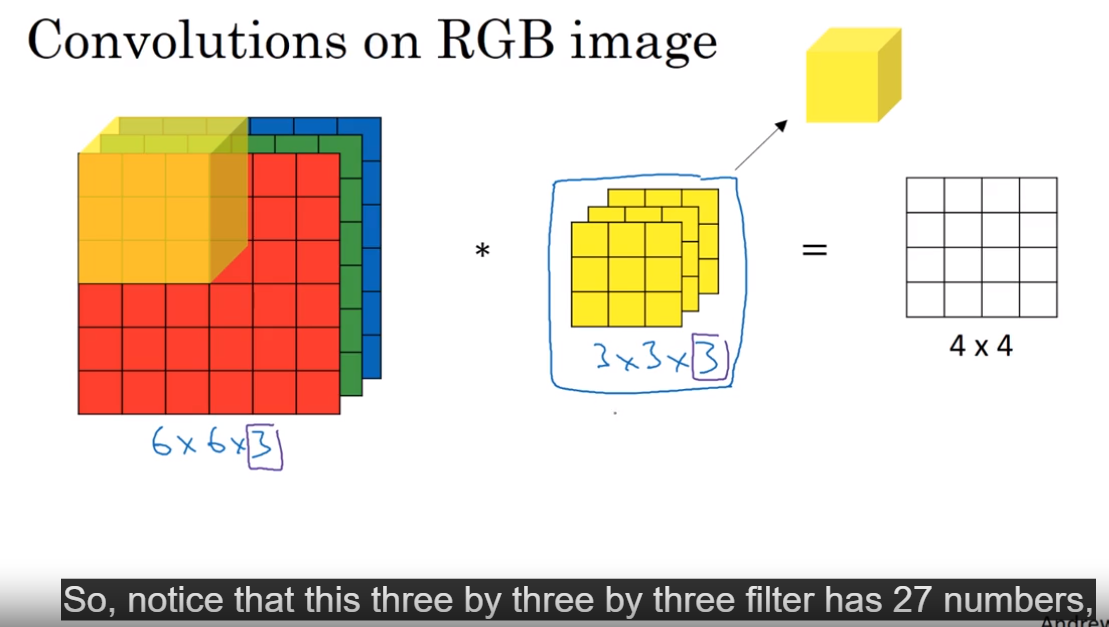
**If p=1-🡪 Pad such that Input image has dimension after convolution too**

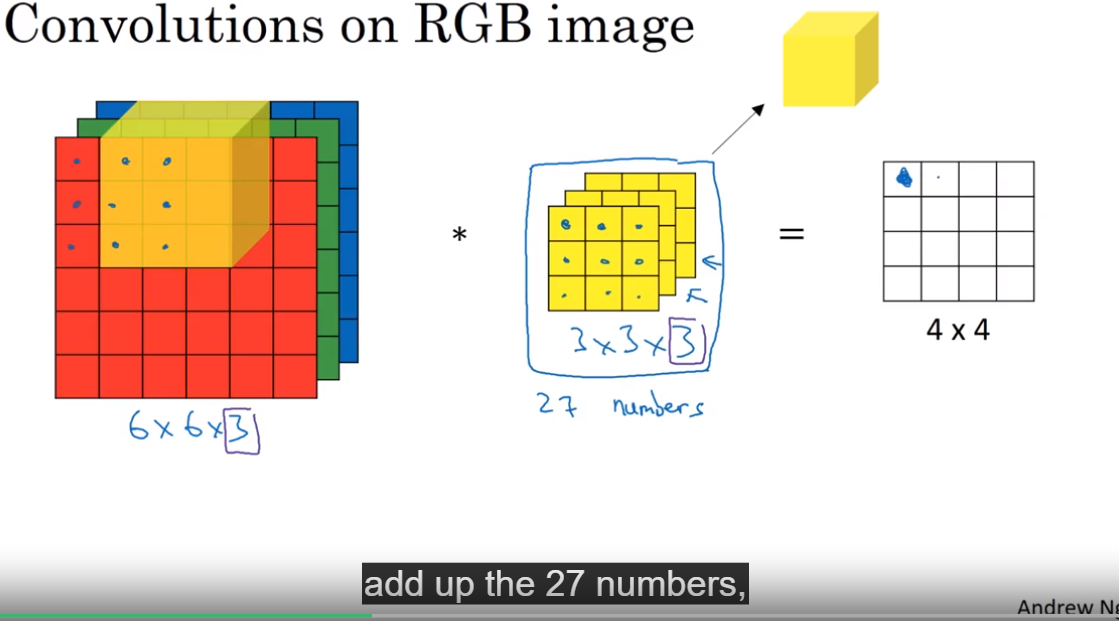
**STRIDE CONV:**

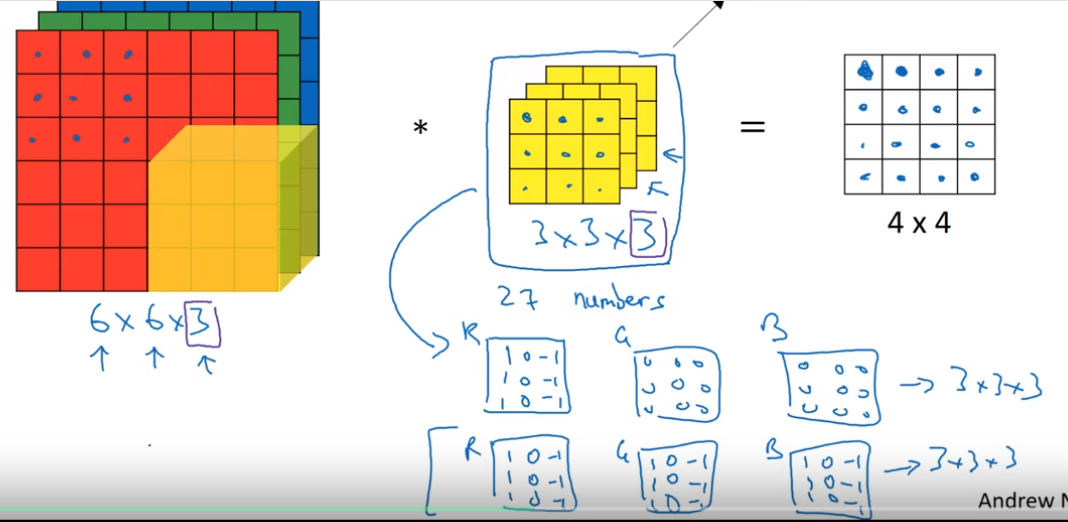


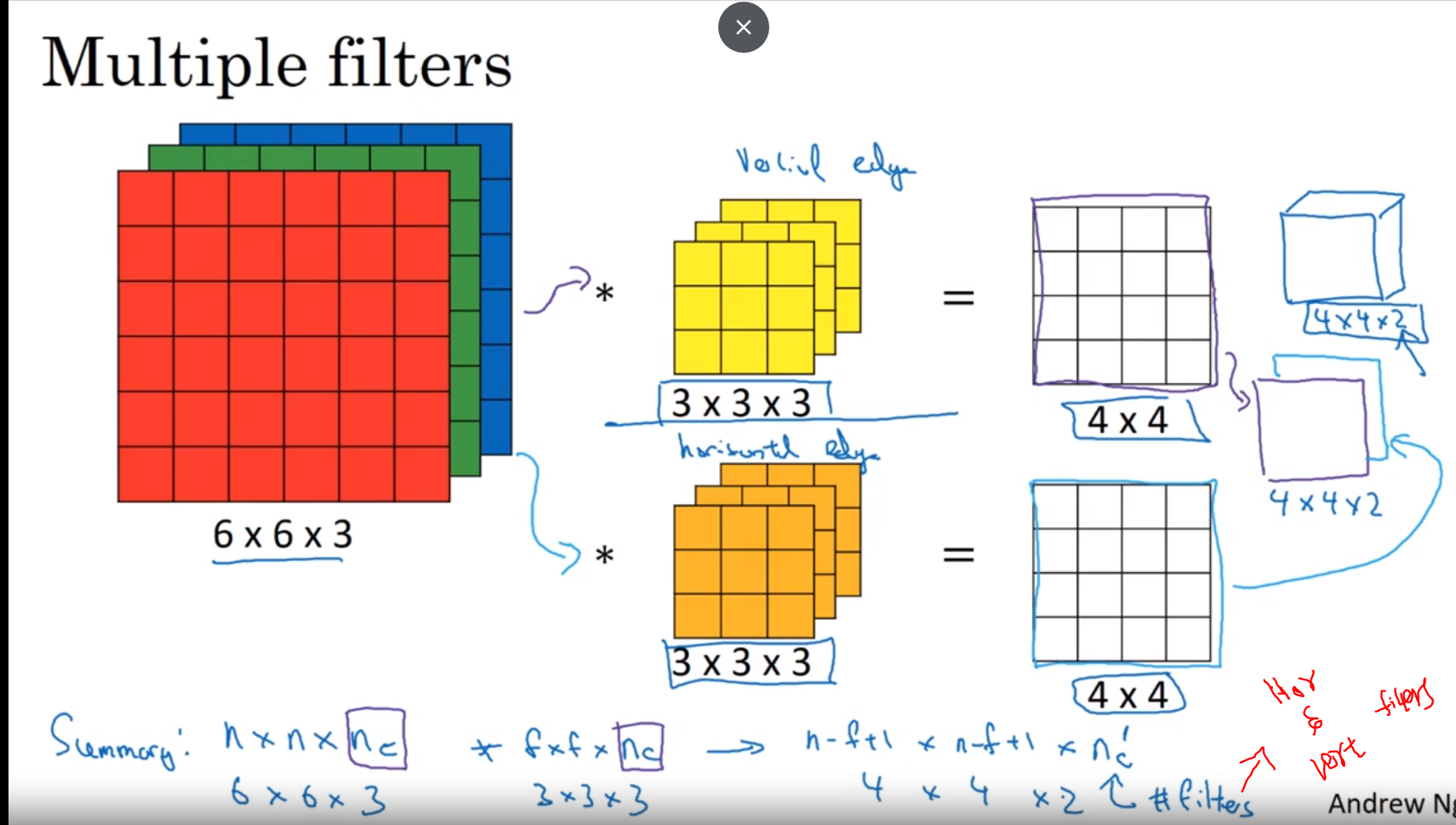


**3D Images**

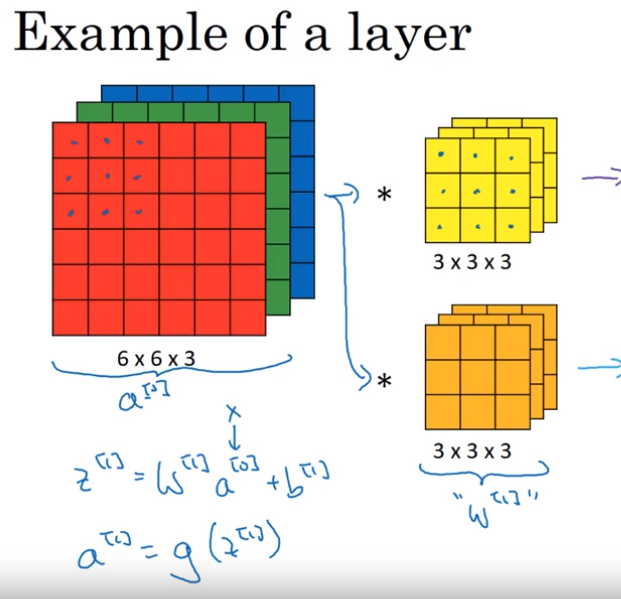


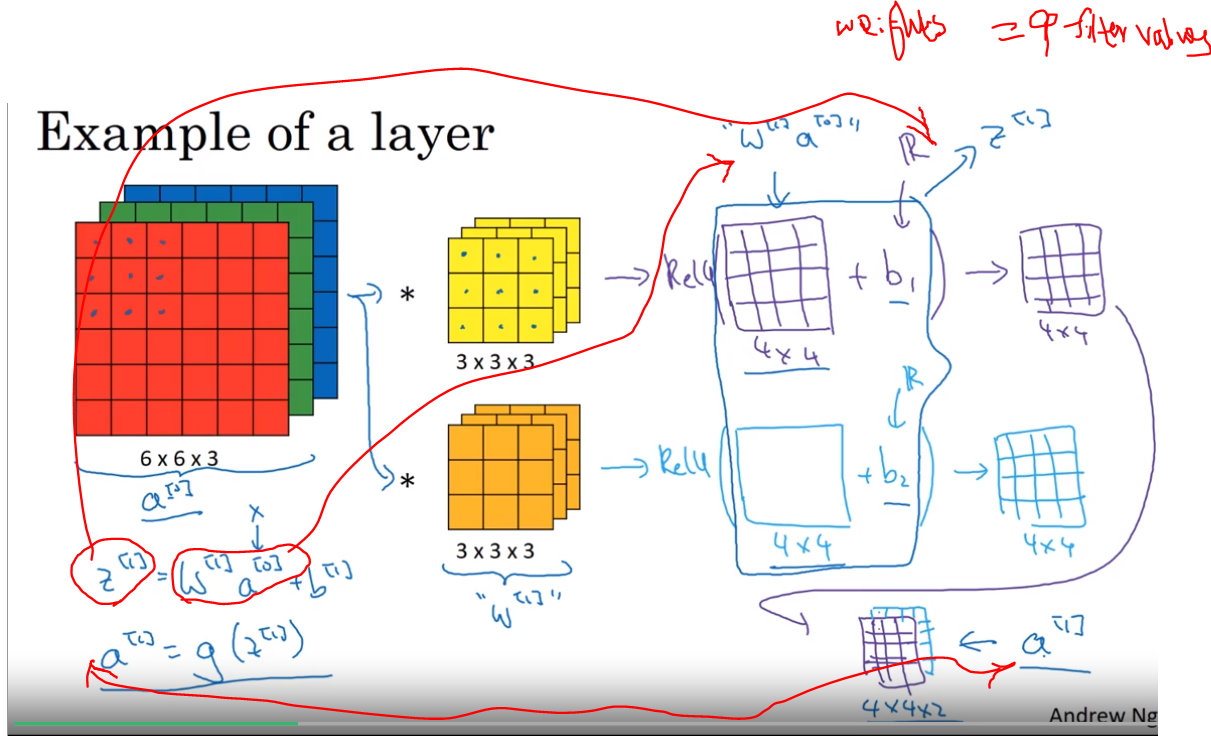


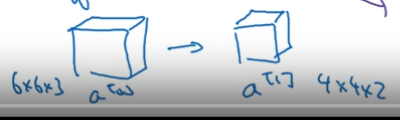




**We denote 3rd dimension as Channel or depth.to avoid confusion with NN we use 3rd dim as channel.**







**1-Layer CNN**

