Question Answers:

**Question:**

Define I, O, F, S, P as used in this lecture (Give a brief, 1-sentence description)

**Answer:**

I represent Input Volume, F represents filter (kernel size), s represents stride, and p represents padding (sometimes zero).

**Question:**

What is my output size if Input = (100, 100), kernel size=(2, 2), the stride of 1, and no pooling?

**Answer:**

 O = (I – F + 2P) / S + 1

Output = (100,100) – (2,2) + 2(0) / 1+1

Output = 98 /2

Output = 49

The output is 49.

**Question:**

How many weights do I have if I have 24 such filters stacked (conv2\_24)?

**Answer:**

(2,2,2) \* 24 = 192

**Question:**

Solve for the padding (P), in terms of I, F, and S, if we want the input and output size to remain the same.

**Answer:**

Well, if padding is “same” padding, the output size will always equal to the input size. (non-zero)

To solve for this:

I = O = (I – F + 2P) / S + 1 => I = (I – F + 2P) / S + 1 => I(S+1) = I – F + 2P => S + 1 = 1 – (F +2P)I

S = -I(F +2P) => -(S/I) = F + 2P => -(S/I) – F = 2P