

## Homework 5

**Instruction(40pts):**

**1. Assume we have an image below,**

0 1 2 3

4 4 7 8

3 3 0 1

5 1 0 3

**If we have two 2x2 filters below to convolve this image with a stride of 1, and no padding is used,**

**Filter1:**

1 2

3 -1

**Filter2:**

0 0

2 4

**What feature maps can we get?**

**2. Based on the feature maps we got in question 1, what do we get if we perform a 3x3 max pooling on the feature maps?**

**3. Find your final project partners (no more than 3 persons each team), and start thinking, discussing and preparing your final project proposal. You will need to do your final project proposal on Mar.8.**