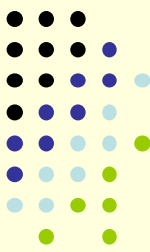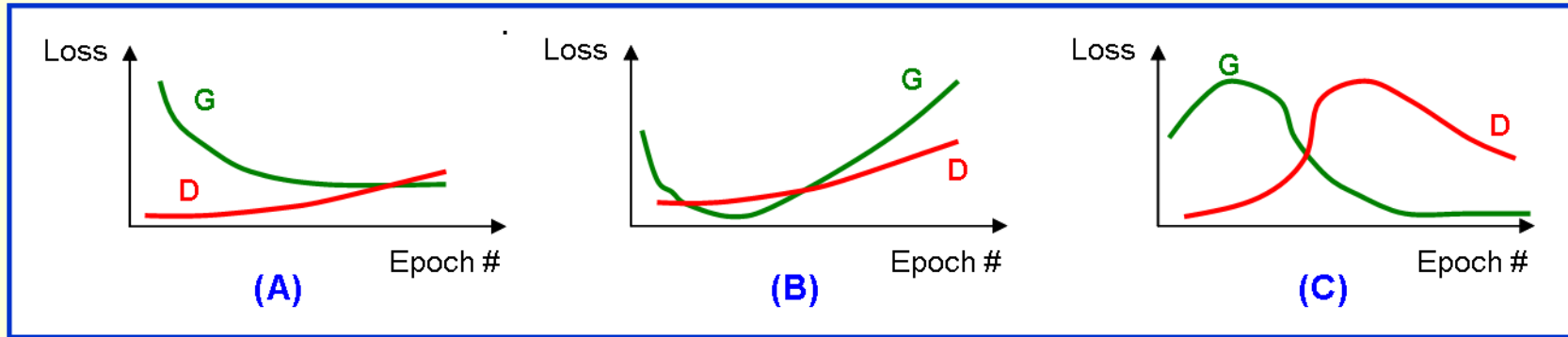# Homework assignments for Class #4

1. Which of the following curves are most likely to represent the change in the loss of generator (G) and discriminator (D) with epoch # during training?

2. The DCGAN generators discussed in the class employ transposed convolutions with 'same' padding. Consider now the case of 'valid' padding. Your input is an image of size 3 x 5 pixels and you apply to it a Conv2DTranspose transformation with filter of size 3 and strides = 2. What will be the shape of the output image?

3. The toy GAN example is making use of the traditional GAN. In the module DLBio/class4, we also provide an implementation of this example using Wasserstein GAN. Review and compare the code of the two implementations. What differences do you observe? Disable the weight clipping in the WGAN code. Does the loss now drop faster with epoch #? Explain the result.