1. What exactly is a feature?

2. For a top edge detector, write out the convolutional kernel matrix.

3. Describe the mathematical operation that a 3x3 kernel performs on a single pixel in an image.

4. What is the significance of a convolutional kernel added to a 3x3 matrix of zeroes?

5. What exactly is padding?

6. What is the concept of stride?

7. What are the shapes of PyTorch's 2D convolution's input and weight parameters?

8. What exactly is a channel?

9.Explain relationship between matrix multiplication and a convolution?