|  |  |  |  |
| --- | --- | --- | --- |
|  | # unit | # weights | # connections |
| Convolution Layer 1 | 290400 | 34,848 | 105,415,200 |
| Convolution Layer 2 | 186,624 | 307,200 | 111,974,400 |
| Convolution Layer 3 | 64,896 | 884,736 | 149,520,384 |
| Convolution Layer 4 | 64,869 | 663,552 | 112,140,288 |
| Convolution Layer 5 | 43,264 | 442,368 | 74,760,192 |
| Fully Connected Layer 1 | 4096 | 37,748,736 | 37,748,736 |
| Fully Connected Layer 2 | 4096 | 16,777,216 | 16,777,216 |
| Output Layer | 1000 | 4,096,000 | 4,096,000 |

Q1a)

b) 1. Majority of the parameters are from fully connected layers. We can reduce the number of parameter by reducing the size of fully connected layers and the last convolutional layer.

2. Convolutional layers have a lot of connections. We can reduce the number of connections by reducing the size of convolutional layers and reducing the number of kernels.