

Exercise 4.1

The eigenvectors are as follows:

Pauli Z : $|0\rangle, |1\rangle$

Pauli X : $|0\rangle + |1\rangle, |0\rangle - |1\rangle$

Pauli Y : $|0\rangle + i|1\rangle, |0\rangle - i|1\rangle$

Bloch sphere representations:

