For sin, cos, and tan, before using the equations given in the homework document to calculate the values, I normalized the given data to [-2pi, 2pi]. And for the first result I noticed that the error range around [-pi, pi] is smaller than [-2pi, 2pi], like the graph for sin demonstrated below. So I then transferred the value from [-2pi, -pi] to [0, pi], and [-pi, 0] to [pi, 2pi].

