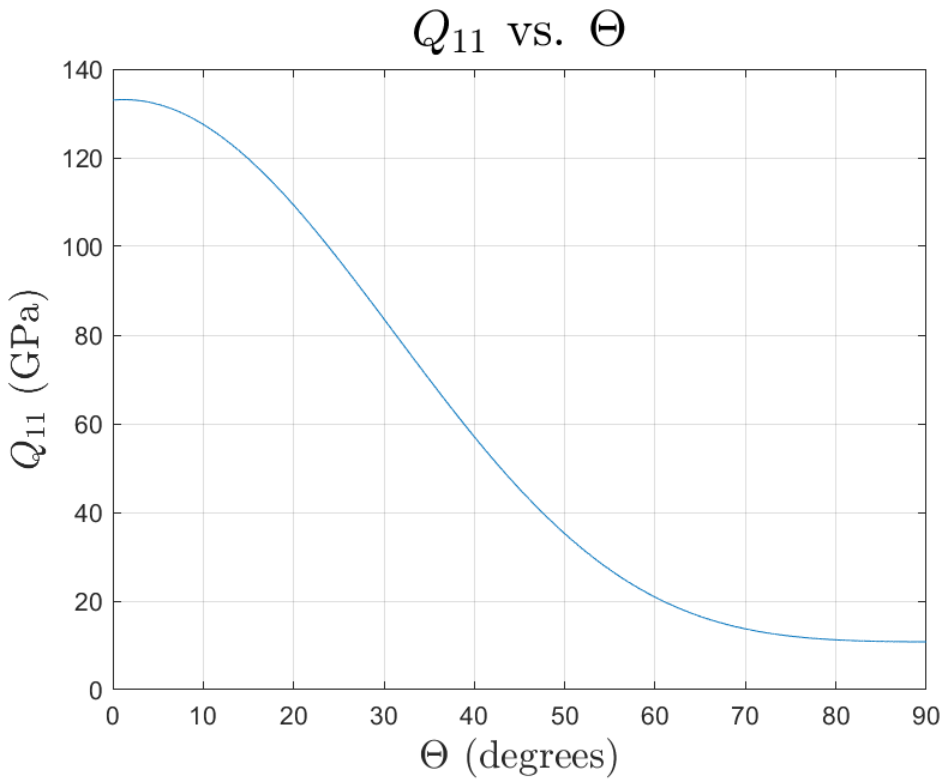
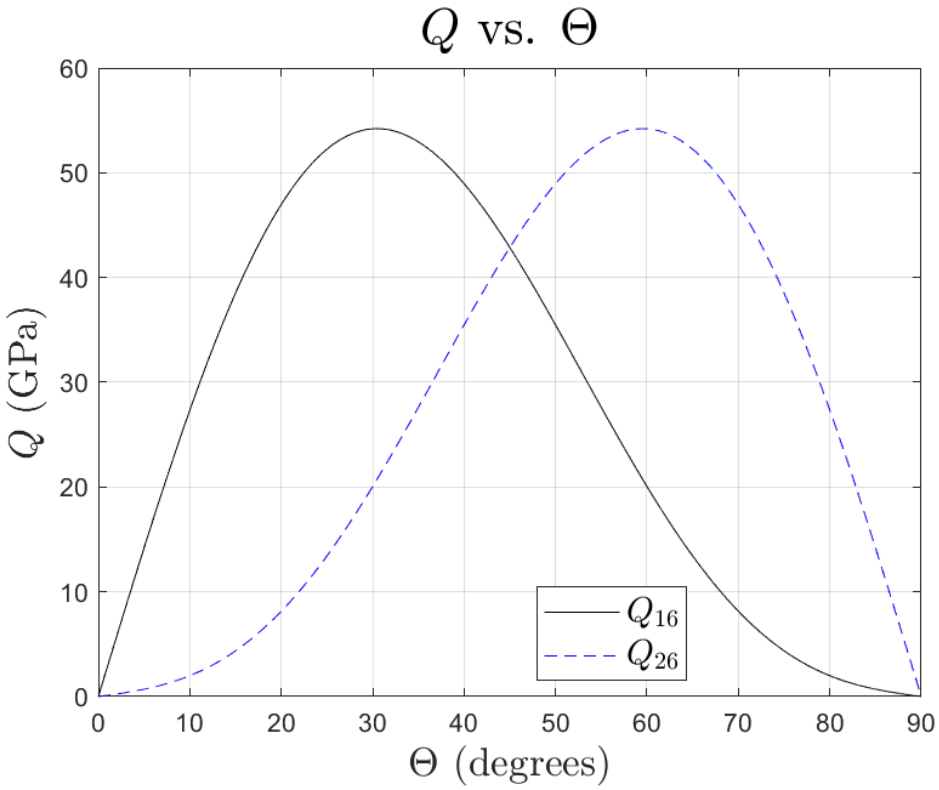
Problem 2 Plot:



Problem 3 Plot: