Name: _____

Matriculation Number: _____

The transfer function model of a piezo-electric micro-actuator is given below. Unit of the transfer function is nm/volt

$$G_{ma}(s) = \frac{1000}{s^2 + 1500s + 5625 \times 10^6}$$

A sinusoidal voltage as described below is applied to the input of this micro-actuator. Determine the maximum swing of the micro-actuator from its neutral position.

$$v(t) = 1.5\sin(1000t) \quad volt$$