Two identical pendula are connected by a light coupling spring. Each pendulum has a length of 0.6 m, and they are located at a place where $g = 9.81 \text{ m/sec}^2$. With the coupling spring connected, one pendulum is clamped and the period of the other is observed to be 1.54 sec exactly.

(a) With neither pendulum clamped, determine the period of each of the normal modes.

(b) Determine the time interval between successive maximum possible amplitudes of one pendulum after the other is drawn aside and released.