

(Q1) (a) $c_0 = 1.5$, $c_1 = 1.25$ (b) $c_0 = 1.0378$, $c_1 = 1.0085$

(Q2) 0.6250

(Q3) $n \geq 9$

(Q4) (a) Range= $[2.30259, 2.63906] \subseteq [2, 3]$

(b) $k = 0.4 < 1$

(c) $p = 2.476313496$

(d) $n \geq 11$

(Q5) $n \geq 18$

(Q6) $p = 1$, attractive. $p = -1$, repulsive. $p = 2$, repulsive.