Name: $\qquad$

ID No: $\qquad$

Q1 A load impedance of $130+\mathrm{j} 90 \Omega$ terminates a $50 \Omega$ loss-less transmission line that is $0.3 \lambda$ long. Without using the smith chart, find
(i) the reflection coefficient at the load,
(ii) the reflection coefficient at the input-end
(iii) the impedance seen at the input to the line
(iv) the voltage standing wave ratio
(v) How do I match the transmission line with load.

