Calculate S, the complex power of a load (in rectangular form), given the following data:
Vrms = 220 V; P = 1 kW; Magnitude of Z = 40 Ohm (inductive).

  a. S = 2000 - j150.3 VA
  b. S = 1000 + j681.2 VA
  c. S = 2000 - j681.2 VA
  d. S = 1000 - j150.3 VA