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Key Solution

Quiz # 3 Serial # Name: I.D.#

A 10 kVA, 4800/240 V, transformer has an equivalent impedance referred to the primary side as $Z_{eq1} = 120 + j300\Omega$. If the secondary side of the transformer supplies a resistive load the rated current at 230 V, the primary voltage terminal will be

- a) $V_1 = 4890\angle 7.3^\circ V$
- b) $V_1 = 5089\angle 7.1^\circ V$
- c) $V_1 = 4905\angle 7.6^\circ V$
- d) $V_1 = 245\angle 7.6^\circ V$