Started on	Wednesday, 19 October 2016, 11:29 AM
State	Finished
Completed on	Wednesday, 19 October 2016, 11:52 AM
Time taken	22 mins 35 secs
Grade	**100.00** out of 100.00

Question 1

Correct

Mark 100.00 out of 100.00

Quiz 6c

Given this set of linear equations.

$$\frac{V_1-(100+j0)}{j40\Omega}+\frac{V_1}{40\Omega}+\frac{V_1-V_0}{60\Omega}=0$$

$$\frac{V_0-V_1}{60\Omega}+\frac{V_0}{j20\Omega}=0$$

Use Matlab (or other software) to find:

$\mathbf{V_0}$ = 15 ✓ + j 5 ✓ Volts

$\mathbf{V_1}$ = 30 ✓ + j -40 ✓ Volts

Express these two results in polar form with a positive valued angle which is less than 180°.

$\mathbf{V_0}$ = 15.81 ✓ at angle 18.43 ✓° (Degree) Volts

$\mathbf{V_1}$ = 50 ✗ at angle 306.87 ✗° (Degree) Volts

Numeric Answer

$\mathbf{V_0}$ = 15.0 + j 5.0 V = 15.811 at angle 18.43° V

$\mathbf{V_1}$ = 30 – j 40 V = -50 at angle 126.87° V

Correct

Marks for this submission: 75.00/100.00.

Comment:
Student picked largest positive angle.