



Universidad Autónoma de Coahuila

Facultad de Ingeniería Mecánica y Eléctrica

Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	14137625
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	JESUS EMMANUEL MORALES MENUIOLA		

Answers

- $297 + j908$
 - $63.0328 + j22.3607$
 - $6.8276 + j6.069$
 - $1.8824 + j1.0023$
- 67.5Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.10085 - j0.23888) \text{ A}$
 - $V_R = (9.07683 - j21.4993) \text{ V}$
 - $V_L = (72.0449 + j30.4167) \text{ V}$
 - $V_C = (-21.1217 - j8.91742) \text{ V}$
 - $P_R = 6.0512 \text{ W}$
 - $P_L = 20.2778 \text{ VAR}$
 - $P_C = -5.9449 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (33.4374 + j9.55538) \text{ V}$
 - $V_{R2} = V_L = V_C = (26.5626 - j9.55538) \text{ V}$
 - $I_{R1} = (0.37153 + j0.10617) \text{ A}$
 - $I_{R2} = (0.29514 - j0.10617) \text{ A}$
 - $I_L = (-0.031683 - j0.088074) \text{ A}$
 - $I_C = (0.10807 + j0.30042) \text{ A}$
 - $P_{R1} = 13.4374 \text{ W}$
 - $P_{R2} = 8.8542 \text{ W}$
 - $P_L = 2.6422 \text{ VAR}$
 - $P_C = -9.0125 \text{ VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	14121732
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	JOEL GERARDO AGUERO LLANAS		

Answers

- $-142 - j65$
 - $-26 + j51$
 - $2.4779 + j5.1681$
 - $0.21988 + j0.74964$
- 7.5Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.096035 - j0.38838) \text{ A}$
 - $V_R = (2.88104 - j11.6513) \text{ V}$
 - $V_L = (58.5656 + j14.4817) \text{ V}$
 - $V_C = (-11.4466 - j2.83045) \text{ V}$
 - $P_R = 4.8017 \text{ W}$
 - $P_L = 24.1362 \text{ VAR}$
 - $P_C = -4.7174 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (28.5897 + j8.76679) \text{ V}$
 - $V_{R2} = V_L = V_C = (21.4103 - j8.76679) \text{ V}$
 - $I_{R1} = (0.95299 + j0.29223) \text{ A}$
 - $I_{R2} = (0.71368 - j0.29223) \text{ A}$
 - $I_L = (-0.058137 - j0.14198) \text{ A}$
 - $I_C = (0.29745 + j0.72643) \text{ A}$
 - $P_{R1} = 29.8076 \text{ W}$
 - $P_{R2} = 17.8419 \text{ W}$
 - $P_L = 3.5495 \text{ VAR}$
 - $P_C = -18.1609 \text{ VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	14124427
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	JERSON CHAVEZ ORTIZ		

Answers

- $-1001 + j664$
 - $-3.494\,118 + j116.2235$
 - $3.0333 + j8.5667$
 - $0.765\,24 + j0.895\,55$
- $12.5\,\Omega$
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.398\,79 - j0.610\,48)\,\text{A}$
 - $V_R = (11.9637 - j18.3144)\,\text{V}$
 - $V_L = (46.0291 + j30.0679)\,\text{V}$
 - $V_C = (-17.9928 - j11.7535)\,\text{V}$
 - $P_R = 15.9515\,\text{W}$
 - $P_L = 40.0906\,\text{VAR}$
 - $P_C = -15.6714\,\text{VAR}$
 - Figure 4
 - $V_{R1} = (21.7534 + j5.656\,33)\,\text{V}$
 - $V_{R2} = V_L = V_C = (18.2466 - j5.656\,33)\,\text{V}$
 - $I_{R1} = (0.725\,11 + j0.188\,54)\,\text{A}$
 - $I_{R2} = (0.608\,22 - j0.188\,54)\,\text{A}$
 - $I_L = (-0.075\,019 - j0.242)\,\text{A}$
 - $I_C = (0.191\,91 + j0.619\,09)\,\text{A}$
 - $P_{R1} = 16.8402\,\text{W}$
 - $P_{R2} = 12.1644\,\text{W}$
 - $P_L = 4.8401\,\text{VAR}$
 - $P_C = -12.3818\,\text{VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	14156040
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	LUIS ANTONIO FERNENDEZ CARRASCO		

Answers

- $-835 + j88$
 - $-33.2787 + j64.9344$
 - $6.4634 + j6.1707$
 - $0.5686 + j0.90601$
- 10Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.082454 - j0.27505) \text{ A}$
 - $V_R = (2.4736 - j8.2516) \text{ V}$
 - $V_L = (51.8465 + j15.5421) \text{ V}$
 - $V_C = (-24.3202 - j7.2905) \text{ V}$
 - $P_R = 2.4736 \text{ W}$
 - $P_L = 15.5421 \text{ VAR}$
 - $P_C = -7.2905 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (15.1207 + j1.34016) \text{ V}$
 - $V_{R2} = V_L = V_C = (14.8793 - j1.34016) \text{ V}$
 - $I_{R1} = (0.50402 + j0.044672) \text{ A}$
 - $I_{R2} = (0.49598 - j0.044672) \text{ A}$
 - $I_L = (-0.0071097 - j0.078937) \text{ A}$
 - $I_C = (0.015157 + j0.16828) \text{ A}$
 - $P_{R1} = 7.6811 \text{ W}$
 - $P_{R2} = 7.4396 \text{ W}$
 - $P_L = 1.1841 \text{ VAR}$
 - $P_C = -2.5242 \text{ VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	14156037
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	MICHAEL MURILLO MENDEZ		

Answers

- $-432 + j432$
 - $63.6923 + j66.4615$
 - $4.7765 + j6.4941$
 - $0.74378 + j0.96171$
- 8.3333Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.07466 - j0.33746) \text{ A}$
 - $V_R = (3.73302 - j16.8732) \text{ V}$
 - $V_L = (89.0549 + j19.7024) \text{ V}$
 - $V_C = (-12.7879 - j2.82919) \text{ V}$
 - $P_R = 5.9728 \text{ W}$
 - $P_L = 31.5239 \text{ VAR}$
 - $P_C = -4.5267 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (49.6792 + j17.1313) \text{ V}$
 - $V_{R2} = V_L = V_C = (30.3208 - j17.1313) \text{ V}$
 - $I_{R1} = (0.99358 + j0.34263) \text{ A}$
 - $I_{R2} = (0.60642 - j0.34263) \text{ A}$
 - $I_L = (-0.064917 - j0.1149) \text{ A}$
 - $I_C = (0.45208 + j0.80015) \text{ A}$
 - $P_{R1} = 55.23 \text{ W}$
 - $P_{R2} = 24.2567 \text{ W}$
 - $P_L = 4.5959 \text{ VAR}$
 - $P_C = -32.0059 \text{ VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	11073892
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	JOSUE AMADOR SIFUENTES		

Answers

- $-72 + j368$
 - $56.4 + j27.2$
 - $3.3103 + j4.2759$
 - $1.0629 + j0.98986$
- 26.6667Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.10098 - j0.20073) \text{ A}$
 - $V_R = (8.07873 - j16.0587) \text{ V}$
 - $V_L = (37.8375 + j19.0351) \text{ V}$
 - $V_C = (-5.9163 - j2.9763) \text{ V}$
 - $P_R = 4.0394 \text{ W}$
 - $P_L = 9.5175 \text{ VAR}$
 - $P_C = -1.4882 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (31.3455 + j9.90907) \text{ V}$
 - $V_{R2} = V_L = V_C = (8.6545 - j9.90907) \text{ V}$
 - $I_{R1} = (0.39182 + j0.12386) \text{ A}$
 - $I_{R2} = (0.10818 - j0.12386) \text{ A}$
 - $I_L = (-0.052569 - j0.045914) \text{ A}$
 - $I_C = (0.33621 + j0.29364) \text{ A}$
 - $P_{R1} = 13.5091 \text{ W}$
 - $P_{R2} = 2.1636 \text{ W}$
 - $P_L = 0.91827 \text{ VAR}$
 - $P_C = -5.8728 \text{ VAR}$

5. This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	11268436
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	EDUARDO ZALDIVAR MARTINEZ		

Answers

- $-936 + j352$
 - $-37.169\ 23 + j110.9538$
 - $7.9888 + j4.382$
 - $0.658\ 74 + j0.869\ 17$
- $35\ \Omega$
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.174\ 54 - j0.1393)\ \text{A}$
 - $V_R = (12.2178 - j9.750\ 96)\ \text{V}$
 - $V_L = (26.2573 + j32.9001)\ \text{V}$
 - $V_C = (-18.4752 - j23.1492)\ \text{V}$
 - $P_R = 3.4908\ \text{W}$
 - $P_L = 9.4\ \text{VAR}$
 - $P_C = -6.614\ \text{VAR}$
 - Figure 4
 - $V_{R1} = (10.0608 + j0.777\ 375)\ \text{V}$
 - $V_{R2} = V_L = V_C = (9.9392 - j0.777\ 37)\ \text{V}$
 - $I_{R1} = (0.143\ 73 + j0.011\ 105)\ \text{A}$
 - $I_{R2} = (0.141\ 99 - j0.011\ 105)\ \text{A}$
 - $I_L = (-0.004\ 124\ 1 - j0.052\ 729)\ \text{A}$
 - $I_C = (0.005\ 861\ 3 + j0.074\ 94)\ \text{A}$
 - $P_{R1} = 1.4546\ \text{W}$
 - $P_{R2} = 1.4199\ \text{W}$
 - $P_L = 0.527\ 29\ \text{VAR}$
 - $P_C = -0.7494\ \text{VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	14140390
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	LUIS DAVID MARENTES REYES		

Answers

- $154 + j414$
 - $36.2162 + j15.2973$
 - $6.2941 + j6.8235$
 - $1.8607 + j0.96721$
- 11.6667Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.10152 - j0.21841) \text{ A}$
 - $V_R = (7.10639 - j15.289) \text{ V}$
 - $V_L = (41.1702 + j19.136) \text{ V}$
 - $V_C = (-8.2766 - j3.847) \text{ V}$
 - $P_R = 4.0608 \text{ W}$
 - $P_L = 10.9349 \text{ VAR}$
 - $P_C = -2.1983 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (27.0514 + j9.5554) \text{ V}$
 - $V_{R2} = V_L = V_C = (12.9486 - j9.5554) \text{ V}$
 - $I_{R1} = (0.38645 + j0.13651) \text{ A}$
 - $I_{R2} = (0.18498 - j0.13651) \text{ A}$
 - $I_L = (-0.050693 - j0.068695) \text{ A}$
 - $I_C = (0.25216 + j0.34171) \text{ A}$
 - $P_{R1} = 11.7583 \text{ W}$
 - $P_{R2} = 3.6996 \text{ W}$
 - $P_L = 1.3739 \text{ VAR}$
 - $P_C = -6.8341 \text{ VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	12068799
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	JESUS ANTONIO ROBLESREYES		

Answers

- $-936 + j352$
 - $-23.3425 + j70.2466$
 - $4.5 + j7.5$
 - $0.68938 + j0.9132$
- 12.5Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.27458 - j0.6883) \text{ A}$
 - $V_R = (8.23731 - j20.6491) \text{ V}$
 - $V_L = (77.8453 + j31.0539) \text{ V}$
 - $V_C = (-26.0826 - j10.4048) \text{ V}$
 - $P_R = 16.4746 \text{ W}$
 - $P_L = 62.1079 \text{ VAR}$
 - $P_C = -20.8097 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (31.9437 + j7.38473) \text{ V}$
 - $V_{R2} = V_L = V_C = (28.0563 - j7.38473) \text{ V}$
 - $I_{R1} = (1.0648 + j0.24616) \text{ A}$
 - $I_{R2} = (0.93521 - j0.24616) \text{ A}$
 - $I_L = (-0.065295 - j0.24807) \text{ A}$
 - $I_C = (0.19488 + j0.74039) \text{ A}$
 - $P_{R1} = 35.8312 \text{ W}$
 - $P_{R2} = 28.0563 \text{ W}$
 - $P_L = 7.4422 \text{ VAR}$
 - $P_C = -22.2116 \text{ VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	14150725
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	LILIANA VERA GLZ		

Answers

- $-198 + j10$
 - $-9.0566 + j49.6981$
 - $2.5385 + j7.0256$
 - $0.41058 + j0.80839$
- 15Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (1.6437 - j1.4931) \text{ A}$
 - $V_R = (32.8744 - j29.862) \text{ V}$
 - $V_L = (225.154 + j247.867) \text{ V}$
 - $V_C = (-198.0284 - j218.005) \text{ V}$
 - $P_R = 98.6231 \text{ W}$
 - $P_L = 743.6009 \text{ VAR}$
 - $P_C = -654.015 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (30.0025 + j0.272487) \text{ V}$
 - $V_{R2} = V_L = V_C = (29.9975 - j0.272487) \text{ V}$
 - $I_{R1} = (1.5001 + j0.013624) \text{ A}$
 - $I_{R2} = (1.4999 - j0.013624) \text{ A}$
 - $I_L = (-0.001807 - j0.19893) \text{ A}$
 - $I_C = (0.0020545 + j0.22618) \text{ A}$
 - $P_{R1} = 45.0111 \text{ W}$
 - $P_{R2} = 44.9963 \text{ W}$
 - $P_L = 5.9678 \text{ VAR}$
 - $P_C = -6.7853 \text{ VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	14125016
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	DAVID OTHONIEL SALDIVAR PEREZ		

Answers

- $-414 - j154$
 - $-45.76 + j41.32$
 - $8.646\,02 + j6.309\,73$
 - $0.380\,79 + j0.864\,71$
- $33.3333\,\Omega$
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.321\,65 - j0.158\,75)\,\text{A}$
 - $V_R = (16.0823 - j7.937\,58)\,\text{V}$
 - $V_L = (17.9544 + j36.3774)\,\text{V}$
 - $V_C = (-14.0367 - j28.4398)\,\text{V}$
 - $P_R = 6.4329\,\text{W}$
 - $P_L = 14.551\,\text{VAR}$
 - $P_C = -11.3759\,\text{VAR}$
 - Figure 4
 - $V_{R1} = (10.0379 + j0.614\,609)\,\text{V}$
 - $V_{R2} = V_L = V_C = (9.9621 - j0.614\,61)\,\text{V}$
 - $I_{R1} = (0.200\,76 + j0.012\,292)\,\text{A}$
 - $I_{R2} = (0.199\,24 - j0.012\,292)\,\text{A}$
 - $I_L = (-0.005\,434\,3 - j0.088\,084)\,\text{A}$
 - $I_C = (0.006\,951\,1 + j0.112\,67)\,\text{A}$
 - $P_{R1} = 2.0228\,\text{W}$
 - $P_{R2} = 1.9924\,\text{W}$
 - $P_L = 0.880\,84\,\text{VAR}$
 - $P_C = -1.1267\,\text{VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	1205596
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	ALBERTO VAZQUEZ MEDINA		

Answers

- $-908 - j297$
 - $-29.566 + j30.0189$
 - $7.2 + j9.1$
 - $0.42591 + j0.95315$
- 20.8333Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.036112 - j0.1427) \text{ A}$
 - $V_R = (1.8056 - j7.135) \text{ V}$
 - $V_L = (37.6574 + j9.52971) \text{ V}$
 - $V_C = (-9.463 - j2.3947) \text{ V}$
 - $P_R = 1.0834 \text{ W}$
 - $P_L = 5.7178 \text{ VAR}$
 - $P_C = -1.4368 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (16.1068 + j3.92143) \text{ V}$
 - $V_{R2} = V_L = V_C = (13.8932 - j3.92143) \text{ V}$
 - $I_{R1} = (0.32214 + j0.078429) \text{ A}$
 - $I_{R2} = (0.27786 - j0.078429) \text{ A}$
 - $I_L = (-0.01486 - j0.052647) \text{ A}$
 - $I_C = (0.059134 + j0.2095) \text{ A}$
 - $P_{R1} = 5.4962 \text{ W}$
 - $P_{R2} = 4.1679 \text{ W}$
 - $P_L = 0.7897 \text{ VAR}$
 - $P_C = -3.1426 \text{ VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	12666518
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	SAMUEL ROSAS GONZALEZ		

Answers

- $-236 + j115$
 - $-15.7 + j51.1$
 - $2.7059 + j5.6765$
 - $0.64736 + j0.78338$
- 46.6667Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.18978 - j0.35588) \text{ A}$
 - $V_R = (13.2849 - j24.9119) \text{ V}$
 - $V_L = (93.91582 + j50.08284) \text{ V}$
 - $V_C = (-47.2007 - j25.1709) \text{ V}$
 - $P_R = 11.387 \text{ W}$
 - $P_L = 42.9281 \text{ VAR}$
 - $P_C = -21.5751 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (30.5082 + j3.87124) \text{ V}$
 - $V_{R2} = V_L = V_C = (29.4918 - j3.87124) \text{ V}$
 - $I_{R1} = (0.43583 + j0.055303) \text{ A}$
 - $I_{R2} = (0.42131 - j0.055303) \text{ A}$
 - $I_L = (-0.01467 - j0.11176) \text{ A}$
 - $I_C = (0.029188 + j0.22236) \text{ A}$
 - $P_{R1} = 13.5105 \text{ W}$
 - $P_{R2} = 12.6394 \text{ W}$
 - $P_L = 3.3527 \text{ VAR}$
 - $P_C = -6.6709 \text{ VAR}$
- This question is moved to Homework #2.



Universidad Autónoma de Coahuila

Facultad de Ingeniería Mecánica y Eléctrica

Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	12064655
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	EDSON ORLANDONAVARRO RAMIREZ		

Answers

- $-250 + j250$
 - $30 + j60$
 - $4.641 + j7.1282$
 - $0.72165 + j0.87629$
- 5Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (1.7839 - j2.2012) \text{ A}$
 - $V_R = (35.6789 - j44.0241) \text{ V}$
 - $V_L = (248.9501 + j201.7594) \text{ V}$
 - $V_C = (-194.629 - j157.7353) \text{ V}$
 - $P_R = 160.555 \text{ W}$
 - $P_L = 907.9173 \text{ VAR}$
 - $P_C = -709.8091 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (45.0274 + j1.10983) \text{ V}$
 - $V_{R2} = V_L = V_C = (44.9726 - j1.10983) \text{ V}$
 - $I_{R1} = (2.2514 + j0.055492) \text{ A}$
 - $I_{R2} = (2.2486 - j0.055492) \text{ A}$
 - $I_L = (-0.0098131 - j0.39765) \text{ A}$
 - $I_C = (0.012552 + j0.50863) \text{ A}$
 - $P_{R1} = 101.4349 \text{ W}$
 - $P_{R2} = 101.1884 \text{ W}$
 - $P_L = 17.894 \text{ VAR}$
 - $P_C = -22.8883 \text{ VAR}$
- This question is moved to Homework #2.



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Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	11126870
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	JUAN GAEL GONZALEZ RODRIGUEZ		

Answers

- $-835 + j88$
 - $-33.2787 + j64.9344$
 - $6.4634 + j6.1707$
 - $0.5686 + j0.90601$
- 10Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.082454 - j0.27505) \text{ A}$
 - $V_R = (2.4736 - j8.2516) \text{ V}$
 - $V_L = (51.8465 + j15.5421) \text{ V}$
 - $V_C = (-24.3202 - j7.2905) \text{ V}$
 - $P_R = 2.4736 \text{ W}$
 - $P_L = 15.5421 \text{ VAR}$
 - $P_C = -7.2905 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (15.1207 + j1.34016) \text{ V}$
 - $V_{R2} = V_L = V_C = (14.8793 - j1.34016) \text{ V}$
 - $I_{R1} = (0.50402 + j0.044672) \text{ A}$
 - $I_{R2} = (0.49598 - j0.044672) \text{ A}$
 - $I_L = (-0.0071097 - j0.078937) \text{ A}$
 - $I_C = (0.015157 + j0.16828) \text{ A}$
 - $P_{R1} = 7.6811 \text{ W}$
 - $P_{R2} = 7.4396 \text{ W}$
 - $P_L = 1.1841 \text{ VAR}$
 - $P_C = -2.5242 \text{ VAR}$
- This question is moved to Homework #2.



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Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	14155580
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	LUIS ALEJANDRO URBINA GONZALEZ		

Answers

- $-1001 + j664$
 - $-39.18 + j88.24$
 - $7.16438 + j7.56164$
 - $0.81773 + j0.88478$
- 13.3333Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.042678 - j0.28902) \text{ A}$
 - $V_R = (0.85356 - j5.7805) \text{ V}$
 - $V_L = (54.4796 + j8.0446) \text{ V}$
 - $V_C = (-15.3332 - j2.26413) \text{ V}$
 - $P_R = 1.7071 \text{ W}$
 - $P_L = 16.0892 \text{ VAR}$
 - $P_C = -4.5283 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (20.3603 + j2.66008) \text{ V}$
 - $V_{R2} = V_L = V_C = (19.6397 - j2.66008) \text{ V}$
 - $I_{R1} = (1.018 + j0.133) \text{ A}$
 - $I_{R2} = (0.98199 - j0.133) \text{ A}$
 - $I_L = (-0.014112 - j0.10419) \text{ A}$
 - $I_C = (0.050141 + j0.3702) \text{ A}$
 - $P_{R1} = 21.0809 \text{ W}$
 - $P_{R2} = 19.6397 \text{ W}$
 - $P_L = 2.0838 \text{ VAR}$
 - $P_C = -7.404 \text{ VAR}$
- This question is moved to Homework #2.



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Unidad Torreón

Subject	Circuit analysis II	Group	5A
Degree	Electrical engineering	Due for	01/09/2016
Exam / Homework	Homework 1: Basics of DC and AC circuits	Registration #	14629184
Professor's name	Suresh Kumar Gadi	Marks Obtained	____ / 10
Student's name	JOSE WALDO QUINTANA ARANDA		

Answers

- $-478 - j621$
 - $-59 + j32$
 - $3.2642 + j9.0755$
 - $0.1999 + j0.92043$
- 53.3333Ω
- $R(1 + \sqrt{3})$
- Figure 3
 - $I = (0.94375 + j0.23041) \text{ A}$
 - $V_R = (75.4996 + j18.433) \text{ V}$
 - $V_L = (-26.05908 + j106.7351) \text{ V}$
 - $V_C = (30.55946 - j125.1681) \text{ V}$
 - $P_R = 75.4996 \text{ W}$
 - $P_L = 106.7351 \text{ VAR}$
 - $P_C = -125.1681 \text{ VAR}$
 - Figure 4
 - $V_{R1} = (40.1082 - j2.07775) \text{ V}$
 - $V_{R2} = V_L = V_C = (39.8918 + j2.07775) \text{ V}$
 - $I_{R1} = (0.50135 - j0.025972) \text{ A}$
 - $I_{R2} = (0.49865 + j0.025972) \text{ A}$
 - $I_L = (0.018371 - j0.35272) \text{ A}$
 - $I_C = (-0.015666 + j0.30078) \text{ A}$
 - $P_{R1} = 20.1623 \text{ W}$
 - $P_{R2} = 19.9459 \text{ W}$
 - $P_L = 14.1088 \text{ VAR}$
 - $P_C = -12.0311 \text{ VAR}$
- This question is moved to Homework #2.