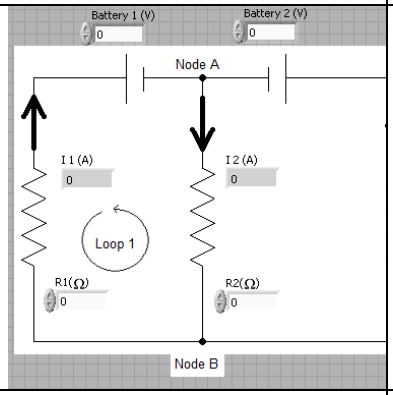
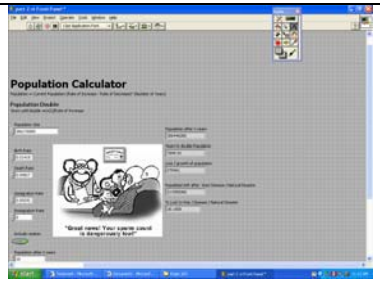
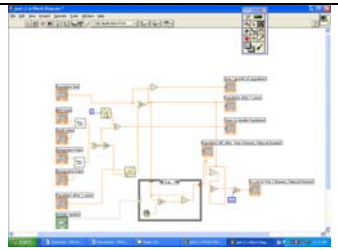
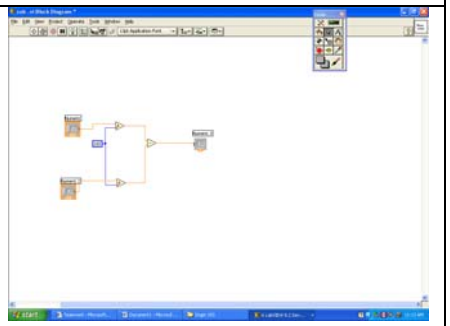
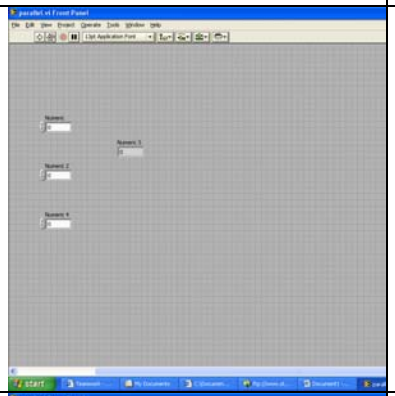
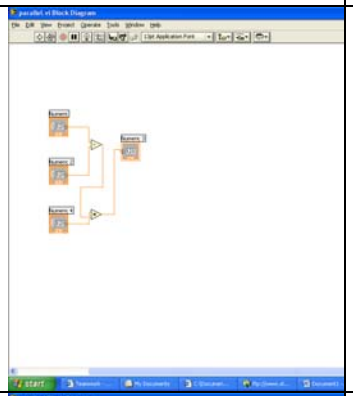
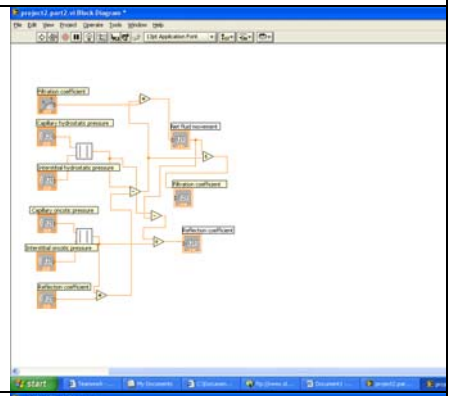
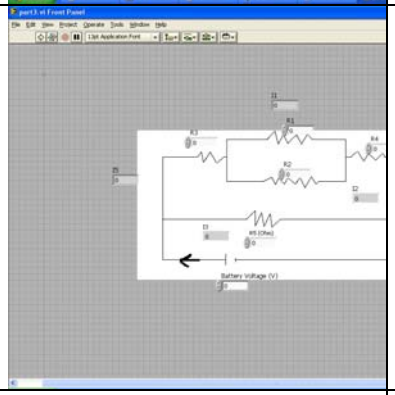
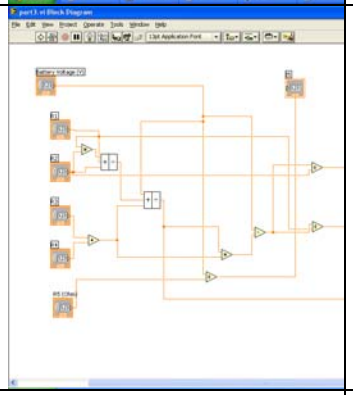
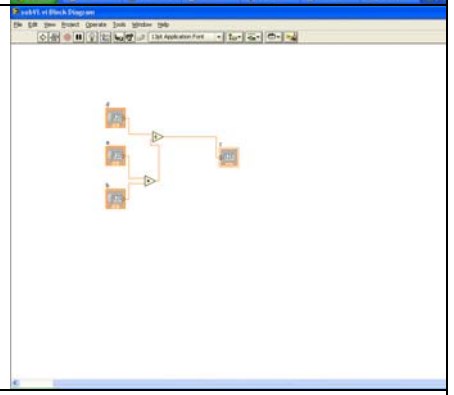
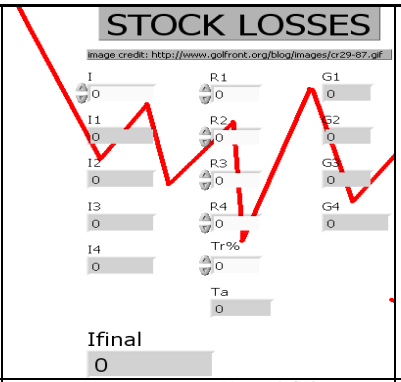
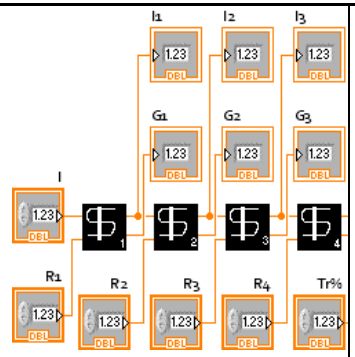
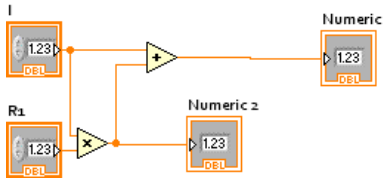
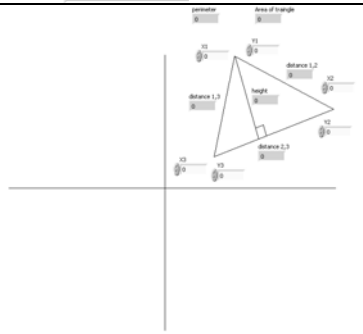
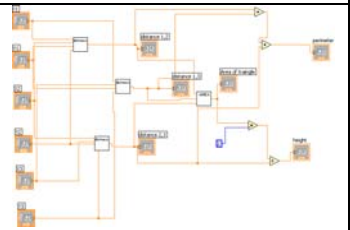
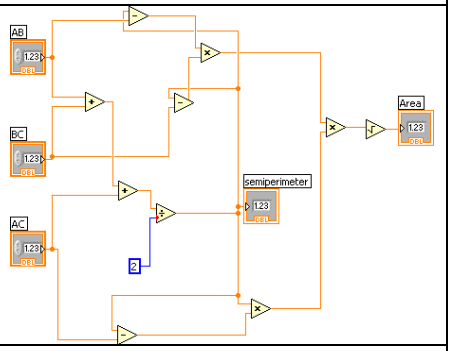
Engin 103 April 9, 2009 back to e-syllabus	Topics: Project 2 Part II Presentations Estimations Logbook questions

Project 2 Part II Presentations

Team #	Brief descriptions of your VI presented in part II	Insert a snap shot of the Front Panel. Resize the figure to a height of 2in	Insert a snap shot of the Block Diagram. Resize the figure to a height of 2in	Insert a snapshot of the Block Diagram of the most important sub VI. Resize the figure to a height of 2in
1	An electrical system with two batteries and parallel resistances. We will solve for the three currents along the resistances.			
2				
3	Our VI is a population calculator for the United States of America. The equations that we used are, Ln(2)/rate of increase. Population = Current Population (Rate of Increase - Rate of Decrease)^(Number of			

	Years)			
4	We substituted the minus and multiplication operations in the subVI.			
5	We had designed a system with inputs of Battery Voltage and resistance R1, R2, R3, R4 and R5, with corresponding currents (Ampere) I1, I2, I3, I4 and I5.			
6				

7	2 consists of a formula designed to determine return on an investment after a fixed period of time (four years). It also incorporates a method of taxation of the investment in the final step.			
8	The VI calculates the Length of Sides, Area Triangle, Height and the Prerimeters			
9				
10				

Spring '09

Project 2 -part I/ Teams	1	2	3	4	5	6	7	8	9	10
Project completed (35)	35	35	35	35	35	35	35	35	35	35
Choice of problem (15)	13	13	14	12	14	14	14	15	14	12
Performance (LabVIEW elements)(25)	21	25	25	21	23	23	23	25	23	23
Presentation (15)	15	15	15	15	15	15	15	15	15	15

Webpage (10)										
Total part I (100)	84	88	89	83	87	87	87	90	87	85
Project 2 -part II/ Teams	1	2	3	4	5	6	7	8	9	10
Project completed (35)	35	35	35	35	35	35	35	35	35	35
Choice of problem (15)	15	14	15	12	12	14	15	15	12	14
LabVIEW elements and subVI's (25)	15	23	25	17	23	23	25	25	20	23
Presentation (15)	15	15	15	15	15	15	15	15	15	15
Webpage (10)										
Total part II(100)	80	87	90	79	85	87	90	90	82	87
Total Project 2 Pres. (200)	164	175	179	162	172	174	177	180	169	172

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Estimation

HW 3

Mass of air through your lung each day:

-Start with some fact: air density (in SI units: kg/m^3)
-Estimate volume of thorax cavity (how? - approximate by a rectangular chamber whose volume is length*width*depth)
-Estimate how many times you breathe in per minute, then per a day
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Number of books checked out at Healey Library a week:

-Fact: number of students, zooming in on which students would check out books from the library

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LOGBOOK: example of a logbook page

-Use a quadrille notebook; number all pages; date all entries
-Write your notes for all activities, thoughts, problems and solutions, and learning conclusions related to Engin 103. You should write down progress, outcomes, and conclusions on projects and teamwork; conclusions from class work (including LabVIEW) and homework.
-In addition you should answer in the logbook all questions listed in these notes in blue, as shown below:

37) Explain any similarity between a sub-VI and a "super-operator". What are the advantages and disadvantages of using a "super-operator" a)in computer programming b) in mathematics

38) Insert a snapshot of the Front Panel and Block Diagram of your team VI for Part II of Project 2, explain why the different elements were used. Also do the same for any sub-VI created and used in Part II.

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