IEGR 350: Engineering Economy
Summer 2017
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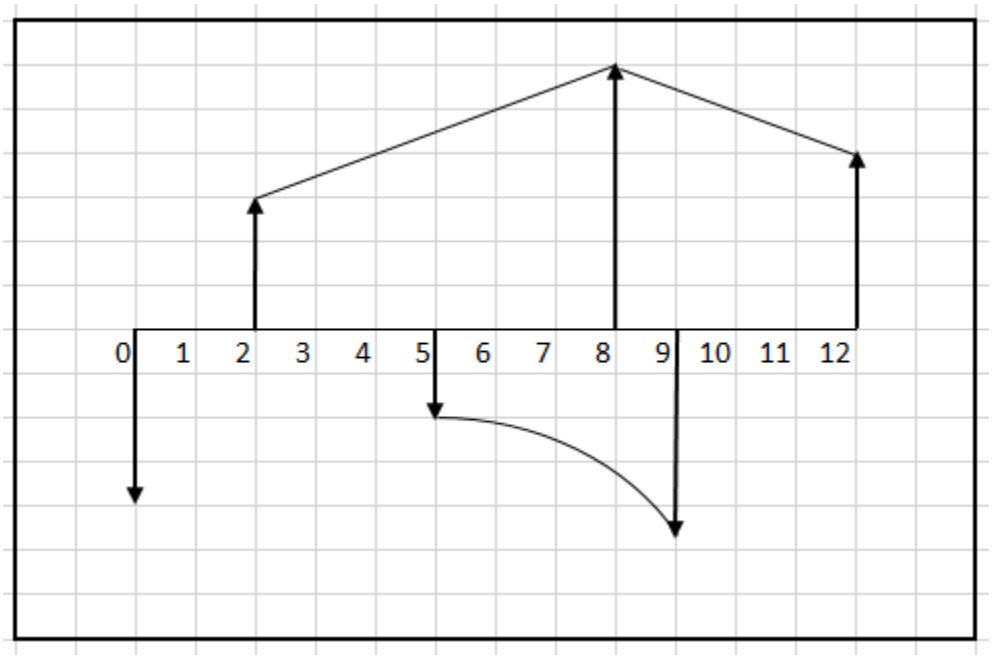
Test 2

Time: 100 Minutes

There are three books available for you to get the factors. Write your formulations and then move to front/back of the class to use the tables. After recording the values, go back to your desk and do the calculations.

PROBLEM 1: (35 Points)

Find the rate of return for the project below. Use tables and interpolation. Each grid is $550. All numbers are at exact grids except the investment at year 9, which is $2,500.



PROBLEM 2: (30 Points)

Sixteen transactions ($100 each) have occurred during a one-year project. Find the present worth of the project for different cases below:
1. MC - monthly compounding for duration of the project
2. WC - weekly compounding for duration of the project
3. CC – Continuous compounding for duration of the project.
All transactions are at the end of mentioned days. Use APR of 9%.

Day	of week	of month
1	1	1
3	6	2
2	14	4
4	19	5
5	26	6
2	33	8
6	33	8
1	35	8
3	35	8
7	35	9
4	40	10
6	42	10
2	50	12
3	50	12
4	50	12
5	52	12

PROBLEM 3: (35 Points)

A company is considering three projects with project lives of 5, 6 and 12 years. Transactions are provided for each project in the table below.

	Transactions		
Year	Alternative 1	Alternative 2	Alternative 3
0	-3000	-4750	-1500
1	2500	2050	0
2	2000	2050	250
3	1500	2050	750
4	1000	2050	1250
5	500	2050	1750
6		1050	2250
7			1000
8			1000
9			1000
10			1000
11			1000
12			600

The company uses 15% MARR compounding annually.
Which project should be selected? All projects can be repeated with the same assumptions.