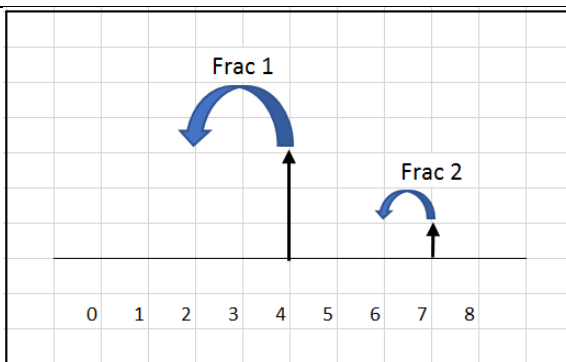


Quiz 3

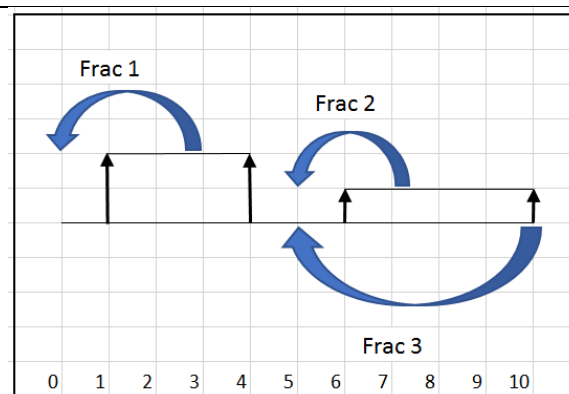
50 Points (Time: 35:00 Minutes)

Question 1: (20 points)

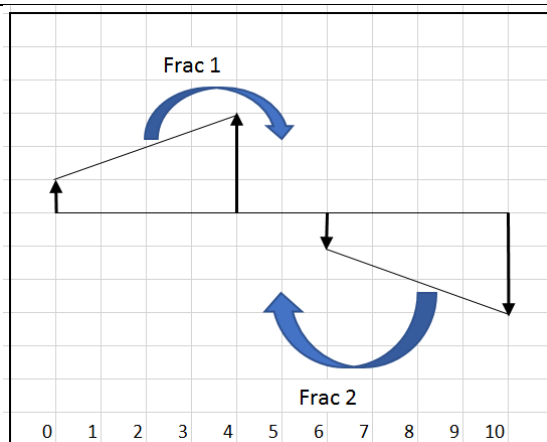
In the diagrams below, Frac refers to an appropriate value of one of the factors used to find present, future, or equal annual payments (such as $(P/F, I, n)$, $(A/P, I, n)$, $(P/G, I, n)$, and so on). For each separate cash flow, write any relationship that might exist between the factors in terms of less than, greater than or equal. If no relationship exists, write “No Relationship”



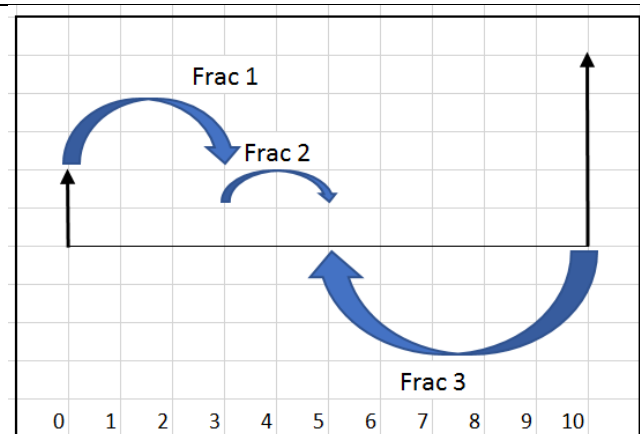
Cash flow 1



Cash flow 2



Cash flow 3



Cash flow 4

Question 2: (30 points)

Below is the table of transactions for a 30 year project with $i\%$ interest rate and annual compounding. You are instructed to find the equivalence of this cash flow at the end of year 2015 (same as beginning of year 2016). Furthermore, the following restrictions apply:

1. No use of Internet, EXCEL or programmable calculators
 2. No combining of transactions before the end of calculations
 3. No use of (P/F, I, n) for payments that are considered as part of a structured series.
- Without solving the problem, layout a plan to find the answer. Do not use general sentences. Be specific. For example, if you see an arithmetic series between years 5 and 9 and intend to find its present worth at year 0, you need to write the statement that would accomplish that instead of saying you want to do that.

Year	Transactions 1	Transactions 2	Transactions 3	Transactions 4
2000	-654239			
2001			2300	
2002			2380	
2003		8200	2460	
2004		8200	2540	-300.00
2005		8200	2620	-360.00
2006	-41000	8200		-432.00
2007		8200	2780	-518.40
2008		8200	2860	-622.08
2009	12000	8200	2940	-746.50
2010		8200	3020	-895.80
2011		8200	3100	-1074.95
2012		8200	3180	
2013	-63421		3260	1000.00
2014		8200	3190	1100.00
2015		8200	3120	1210.00
2016		8200	3050	1331.00
2017		8200	2980	1464.10
2018	15000	8200	2910	1610.51
2019		8200	2840	1771.56
2020		8200	2770	1948.72
2021		8200	2700	2143.59
2022	-71068		2630	2357.95
2023		8200	2560	2593.74
2024		8200	2490	2853.12
2025		8200	2420	3138.43
2026		1500	2350	3452.27
2027	21000	1500		
2028		1500		
2029	32500	1500		