

Instructions: Show all work. Final apportionment will require whole numbers, but you should carry decimal places throughout the calculation until the end.

- Use Hamilton's method to find the apportionment of the trucks to the various delivery areas indicated. The "population" in this case is the number of packages to be delivered. The "seats" are the delivery trucks. There are 25 trucks to be apportioned.

State (Part of Town)	Population (Packages)	Quota	Lower Quota	Upper Quota	+1	Final Apportionment
Northside	12,304	5.704...	5	6	+1	6
Southside	10,021	4.6458...	4	5	+1	5
Eastside	7,432	3.4455...	3	4		3
Westside	5,211	2.4158...	2	3		2
Downtown	18,957	8.7885...	8	9	+1	9
Totals	53,925		22			25

Standard Divisor: $\frac{53925}{25} = 2157$ ↖ need 3

2. Shown below are two related apportionments using Hamilton's method. Determine if there is a paradox being illustrated, and if so, which one. What about the two apportionments tells you you've selected the correct paradox? If there is no paradox, indicate that.

Campus	Enrollment	Quota	Lower Quota	Add remaining seat	Final Apportionment
North	10,170	20.34	20		20
Kendall	9,150	18.3	18		18
Wolfson	680	1.36	1	+1	2
Total	20,000	40	39		40

Campus	Enrollment	Quota	Lower Quota	Add remaining seats	Final Apportionment
North	10,170	20.85	20	+1	21
Kendall	9,150	18.76	18	+1	19
Wolfson	680	1.39	1		1
Total	20,000	41	39		41

Seats changed by going up but Wolfson lost a seat in the process.

Alabama Paradox