

TOPIC: HAMILTON'S METHOD

Hamilton's Method

◆ **Hamilton's method** is an apportionment method that relies on using lower quotas and distributing leftovers.

EXAMPLE

A city receives a donation of 100 science kits to apportion to their 5 elementary schools fairly. Use **Hamilton's method** to apportion the kits.

Schools	Elm	Birch	Oak	Maple	Pine
Student Pop	748	689	637	494	432
Standard Quota	24.93	22.97	21.23	16.47	14.40
Lower Quota					
Apportionment					

HOW TO: Hamilton's Method

- 1) Find **standard divisor** and **quotas**
- 2) Find all _____ quotas
- 3) Add lower quotas & **compare** to # of items to find # of _____
- 4) Assign leftovers *1 at a time* to groups w/ largest _____ parts in their SQ

◆ Hamilton's method always satisfies the **quota rule**: each group's apportionment is either their upper or lower quota.

PRACTICE

A workplace has three divisions led by Angelica, Eliza, and Peggy. They want to distribute 20 new ergonomic office chairs fairly across the three divisions, based on the size of each. Use Hamilton's Method to apportion the new chairs.

Division	# of Employees
Angelica	58
Eliza	30
Peggy	12

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EXAMPLE

A University Student Council is being formed with representatives from its four colleges. Representation on each council is based on student enrollment, as shown below. Apportion the 140 seats on the council to the four colleges using Hamilton's method.

College	Enrollment
Nursing	3,420
Arts & Sciences	2,880
Engineering	2,160
Education	1,140

HOW TO: Hamilton's Method

- 1) Find **standard divisor** and **quotas**
- 2) Find all lower quotas
- 3) *Add* lower quotas & **compare** to # of items to find # of leftovers
- 4) Assign leftovers *1 at a time* to groups w/ largest decimal parts in their SQ