

"Consecutive Slices" Parallel Pizza-Eating Algorithm (does not assume N is evenly divisible by P)

1. Define N : How many slices of pizza?
2. Define P : How many people?
3. Compute $\text{slicesPP1} = \text{ceiling}(\text{float}(N)/P)$.
4. Compute $\text{slicesPP2} = \text{slicesPP1} - 1$.
5. Compute $\text{remnants} = N \% P$ (the remainder of N/P).
6. Assign each slice of pizza a unique number ($0..N-1$).
7. Get your own personal, unique id number ($0..P-1$).
8. Compute $\text{start} = \text{id} * \text{slicesPP1}$; $\text{stop} = \text{start} + \text{slicesPP1}$.
9. If ($\text{remnants} > 0$) AND ($\text{id} \geq \text{remnants}$), recompute:
 $\text{start} = \text{remnants} * \text{slicesPP1} + (\text{id} - \text{remnants}) * \text{slicesPP2}$;
 $\text{stop} = \text{start} + \text{slicesPP2}$.
10. For ($s = \text{start}$; $s < \text{stop}$; $++s$):
 Eat slice s .

N :

P :

slicesPP1 :

slicesPP2 :

remnants :

id :

start :

stop :

s (slice #s eaten):

