Coin method

Ex: binary counter: INC (increment), ℓ bits, unit cost = 1 bit flip

$\ell = 3$

000
001
010
011
100
101
110
111

$\Theta(\ell)$ worst case

Obs: bit i changes once in every 2^{i-1} operations

n INCs $\Rightarrow$ by aggregation $\sum_{i=1}^{\ell} \left\lfloor \frac{n}{2^{i-1}} \right\rfloor \leq n \sum_{i=1}^{\infty} \frac{1}{2^{i-1}} = 2n$

$\Rightarrow \Theta(1)$ amortized time

paying in advance: 2 coins fo