

## \* Linked List Random Node

If the linked list is extremely large,  
use Reservoir Sampling.

1, 2, 3, ... n  
 $\frac{1}{n}$  for choosing one element.

1, 2, 3, ... n  
 $\frac{k}{n} \rightarrow$  for choosing  $k$  over  $n$

$1 - \frac{1}{n} \rightarrow$  not selecting  $\Rightarrow \frac{n-1}{n}$

Method of getting max. element in array  
left to right