

Count in

1. 1. phases / cost of probes

times right count

5. By geometric probability distribution,  $\frac{1}{p}$  is the expected number of probe attempts until succeeding

$p = 1 - \alpha$  where  $\alpha = \frac{n}{m}$  for  $n = \text{number of elements}$  and  $m = \text{TableSize}$

Thus for hashing scheme with open addressing, the number of probes expected is

$$O\left(\frac{1}{1-\alpha}\right)$$