



Q.3 @ (ii) > Min cut Size=3

The algorithm returns the correct answer is  $\geq 2$ 

Here n=12

· , Prob. > 2 = 1 12x11 = 66

The year depeat (n-2) (ontractions

for 100n(n-1) times then

frob. that algo. Deturns

the correct answer is > 1-e

-> 1

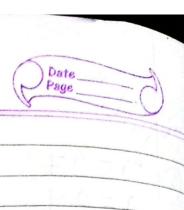
OR

> Pr. that the randomly selected Pivot creates the worst partition

7 2 C: Min Rank and 50 Max Rank elements

> Po (2 is not the wast) = 1-2 = 47 First wees the 49 49 worst Partition) (: 49 elements for and part

Compute a - mod n = 29 MOD 97 96: (1 1 0 0 0 0 0) MSB i.e. Bit 7 is 1 is sees=(sees \* a) ilon.  $= (1 + 29) \cdot 1.97$ Ices - les / on = 841 % . 97 > Bit 6 is I : res = (res xa)./.n  $=(65 \times 29) \cdot \sqrt{.97}$ -> Bit 5 is 6 · · · Sels = 42 / · 97



Bit 4 is 0

Bit 3 is 0

Bit 2 is 0

Bit 1 is 000

+12-12 1128 = 1

Feemat's Little 36 (Feemat's Little) = a mod gt

> Just to avoid possibility of incomed answer, it will (algo) be repeated k times.