

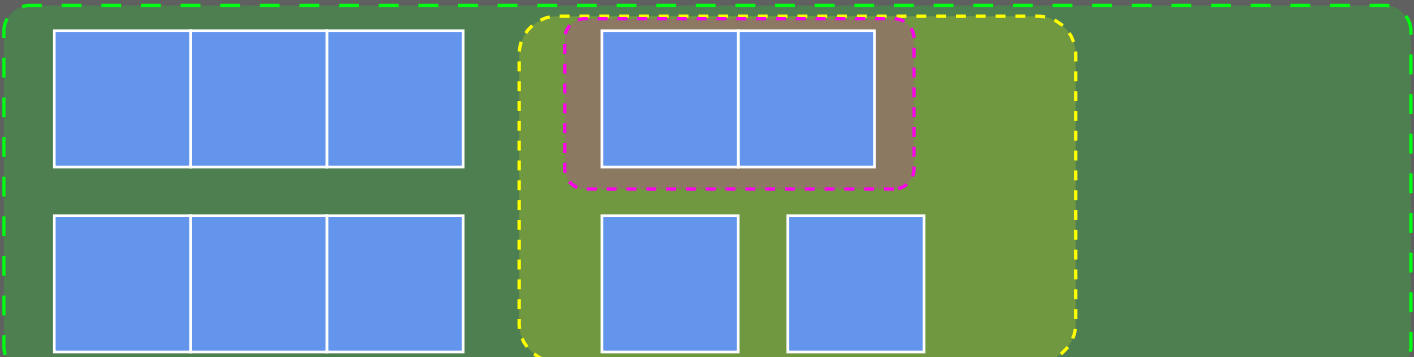
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We can
separate number of ways
to partition 5 with part up
to size 3
 $P(5,3)$ in 2 categories:



With 3

We observe that in case **"With 3"**
we actually just need to count
how many ways to
partition 2 with part up to size 3.
Since there is no way
to partition 2 using 3 (empty set)
we can't see it in the partition chart
But we can see in **recursion tree**
it returns 0



Without 3

Now we observe that in case
"Without 3" is become the problem
of counting number of ways to
partition 5 with part up to size 2:
 $P(5,2)$
Our first initial problem become
smaller in size.
Let separate number of ways to
partition 5 with part up to size 2
again:
With 2
Without 2

