## Normalized Polish Expression

- Draw slicing floorplan based on:
- Initial PE: $\mathrm{P}_{1}=25 \mathrm{~V} 1 \mathrm{H} 374 \mathrm{VH} 6 \mathrm{~V} 8 \mathrm{VH}$
- Dimensions: (2,4), (1,3), (3,3), (3,5), (3,2), (5,3), (1,2), (2,4)



## M1 Move

- Swap module 3 and 7 in $\mathrm{P}_{1}=25 \mathrm{~V} 1 \mathrm{H} 374 \mathrm{VH} 6 \mathrm{~V} 8 \mathrm{VH}$
- We get: $\mathrm{P}_{2}=25 \mathrm{~V} 1 \mathrm{H} \underline{73} 4 \mathrm{VH} 6 \mathrm{~V} 8 \mathrm{VH}$
- Area changed from $11 \times 15$ to $13 \times 14$



## Change on Floorplan



## M2 Move

- Complement last chain in $\mathrm{P}_{2}=25 \mathrm{~V} 1 \mathrm{H} 734 \mathrm{VH} 6 \mathrm{~V} 8 \mathrm{VH}$
- We get: $\mathrm{P}_{3}=25 \mathrm{~V} 1 \mathrm{H} 734 \mathrm{VH} 6 \mathrm{~V} 8 \underline{\mathrm{HV}}$
- Area changed from $13 \times 14$ to $15 \times 11$



## Change on Floorplan



Practical Problems in VLSI Physical Design

## M3 Move

- Swaps 6 and V in $\mathrm{P}_{3}=25 \mathrm{~V} 1 \mathrm{H} 734 \mathrm{VH} 6 \mathrm{~V} 8 \mathrm{HV}$
- We get: $\mathrm{P}_{4}=25 \mathrm{~V} 1 \mathrm{H} 734 \mathrm{VHV6} 8 \mathrm{HV}$
- Area changed from $15 \times 11$ to $15 \times 7$



## Change on Floorplan



## Initial Temperature Calculation

- What is average change on cost function?
- Initial temperature with acceptance probability 0.9 ?

The area changed from $11 \times 15$ to $13 \times 14$ to $15 \times 11$ to $15 \times 7$. Thus, the average area change is

$$
\Delta_{\text {ave }}=\frac{|165-182|+|182-165|+|165-105|}{3}=31.33
$$

Thus,

$$
T_{0}=\frac{-\Delta_{a v e}}{\ln (0.9)}=297.39
$$

