

# Data Layout Transformation and Data Distribution Figures

CS 5/4473 Parallel Distributed and Network Programming

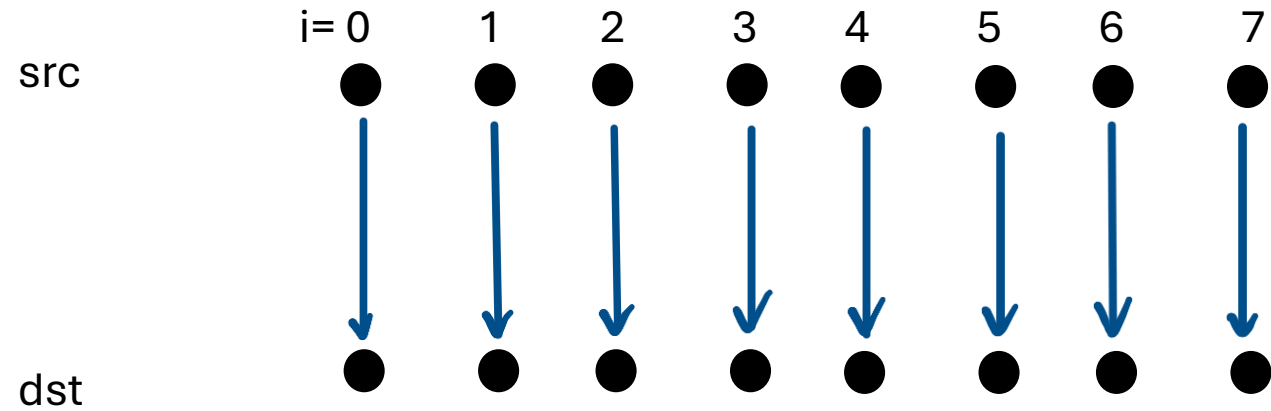
Dr. Richard Veras

Joy Mosisa

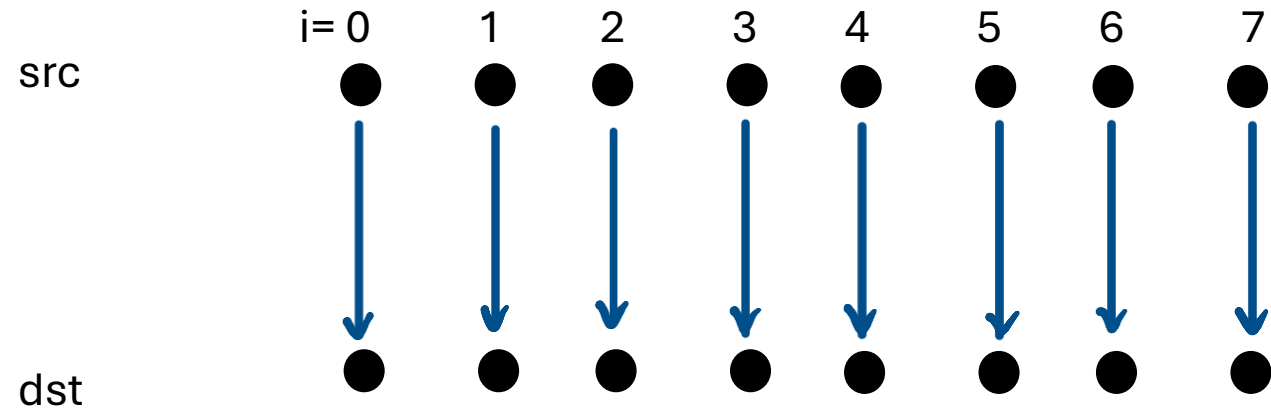
# Instructions

- For each problem in the code (XX.Z) draw the data movement (add all of the arrows) between:
  - `src --> dst`,
  - `src --> src_dlt --> dst`, Or
  - `src --> src_dist --> dst_dist --> dst`
- You can use this template, but you are not required to use it.
- The debug output will give you everything you need.

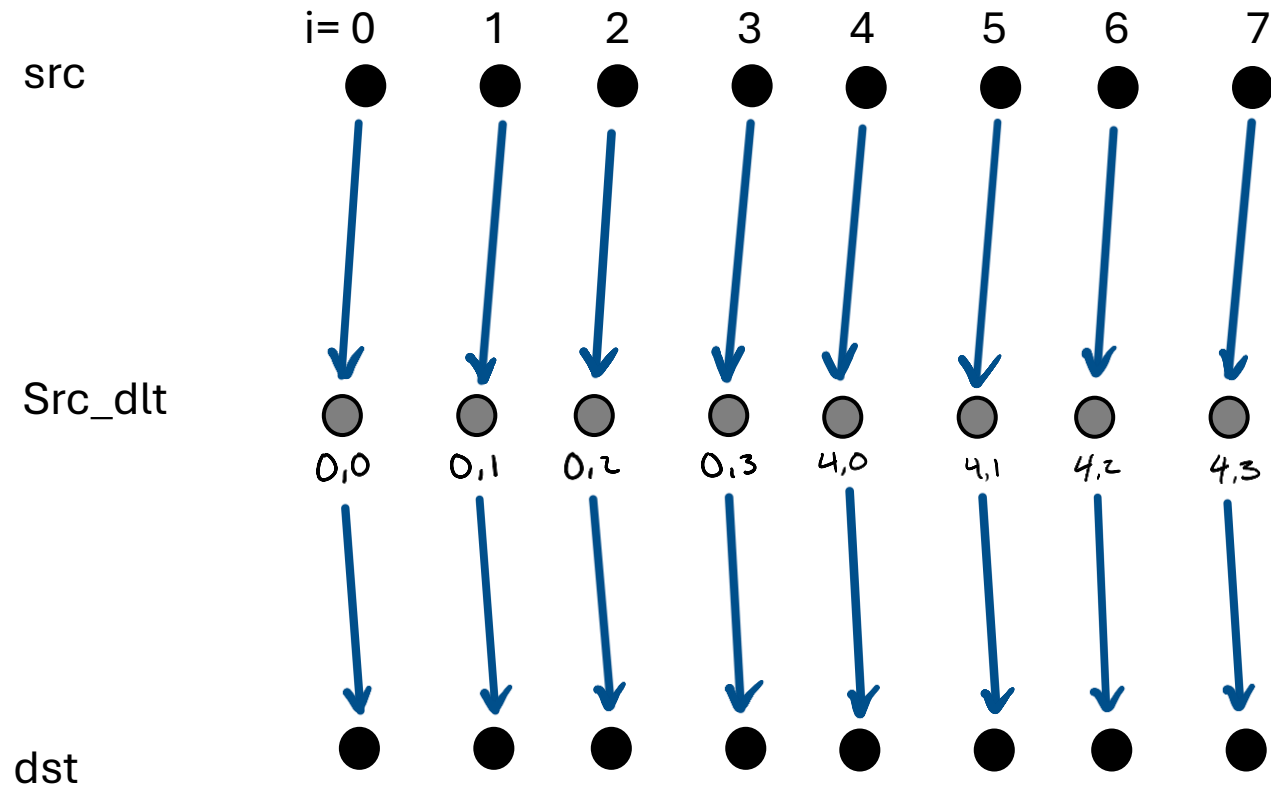
## DLT: 01.0 (student\_nodlt\_2d)



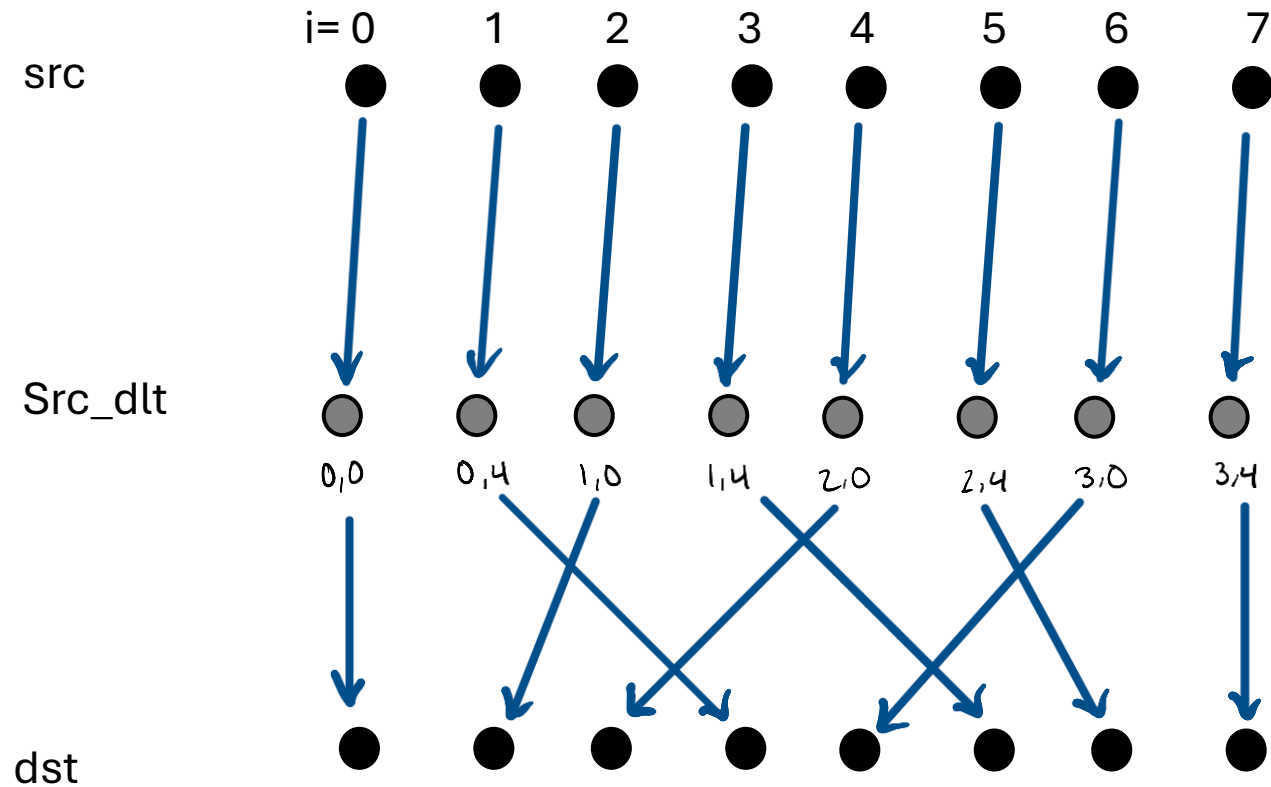
# DLT: 01.1 (student\_nodlt\_2d)



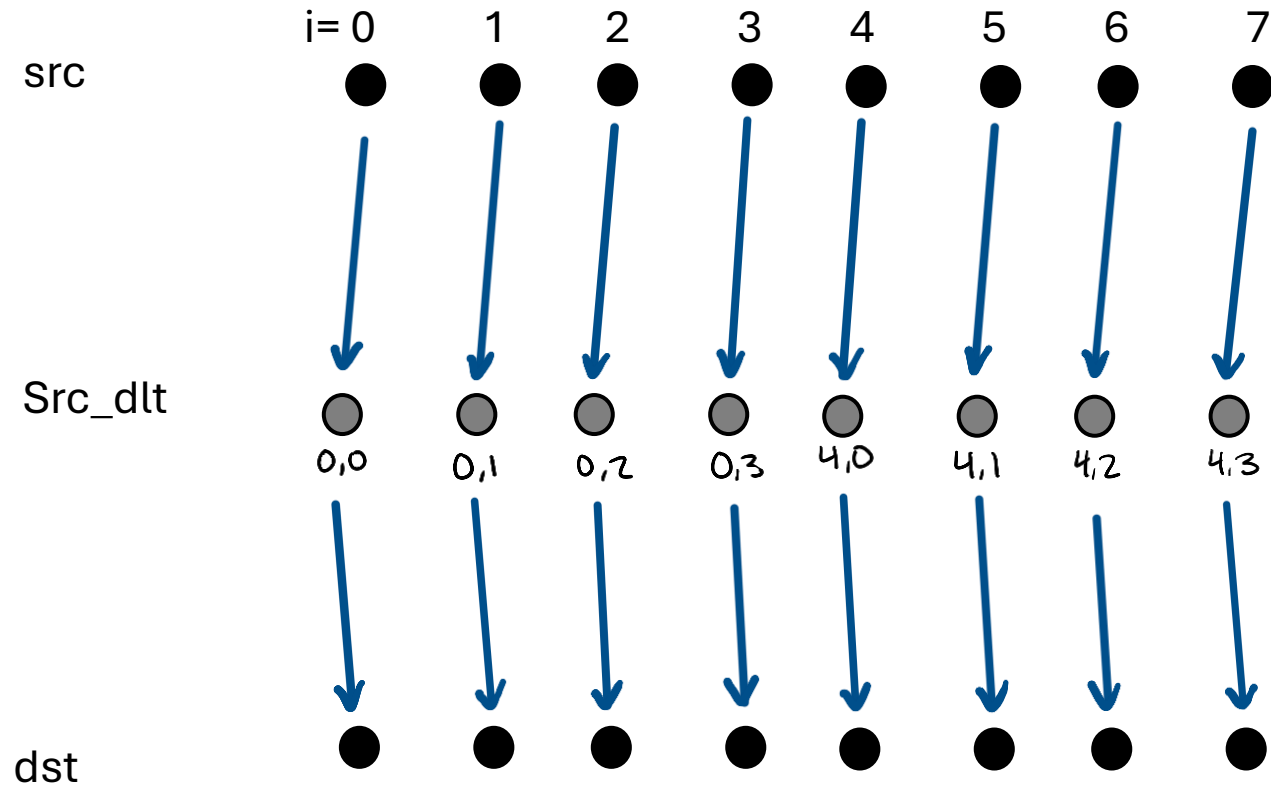
# DLT: 02.0 (student\_dlt\_c\_array\_2d)



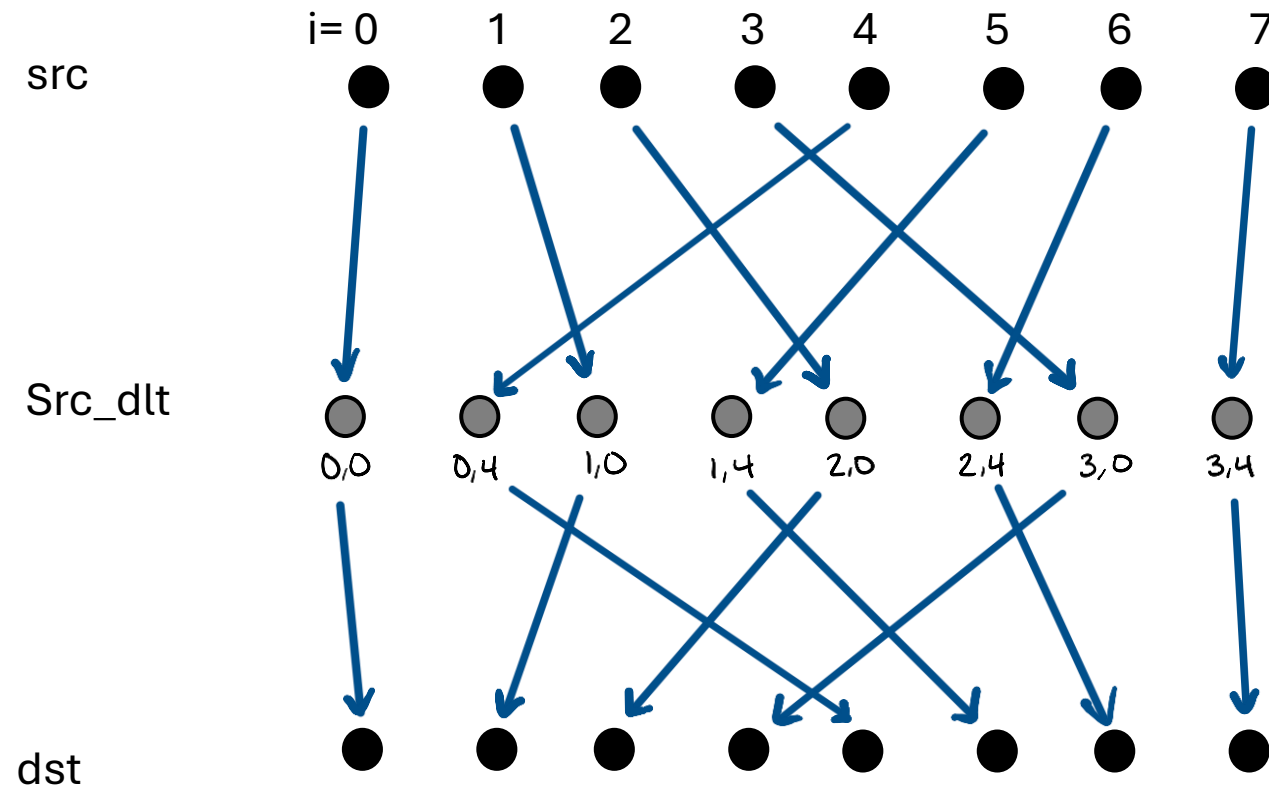
# DLT: 02.1 (student\_dlt\_c\_array\_2d)



# DLT: 03.0 (student\_dlt\_c\_array\_linearized\_2d)

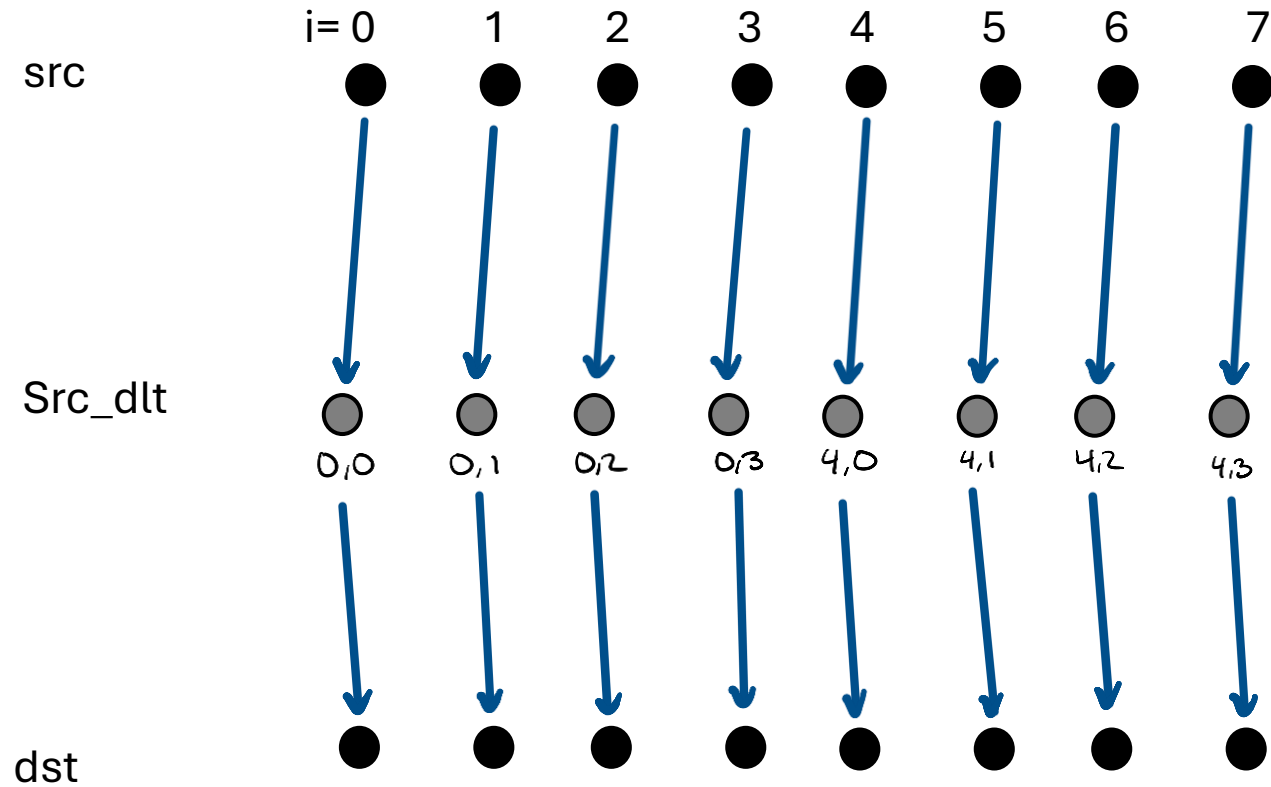


# DLT: 03.1 (student\_dlt\_c\_array\_linearized\_2d)

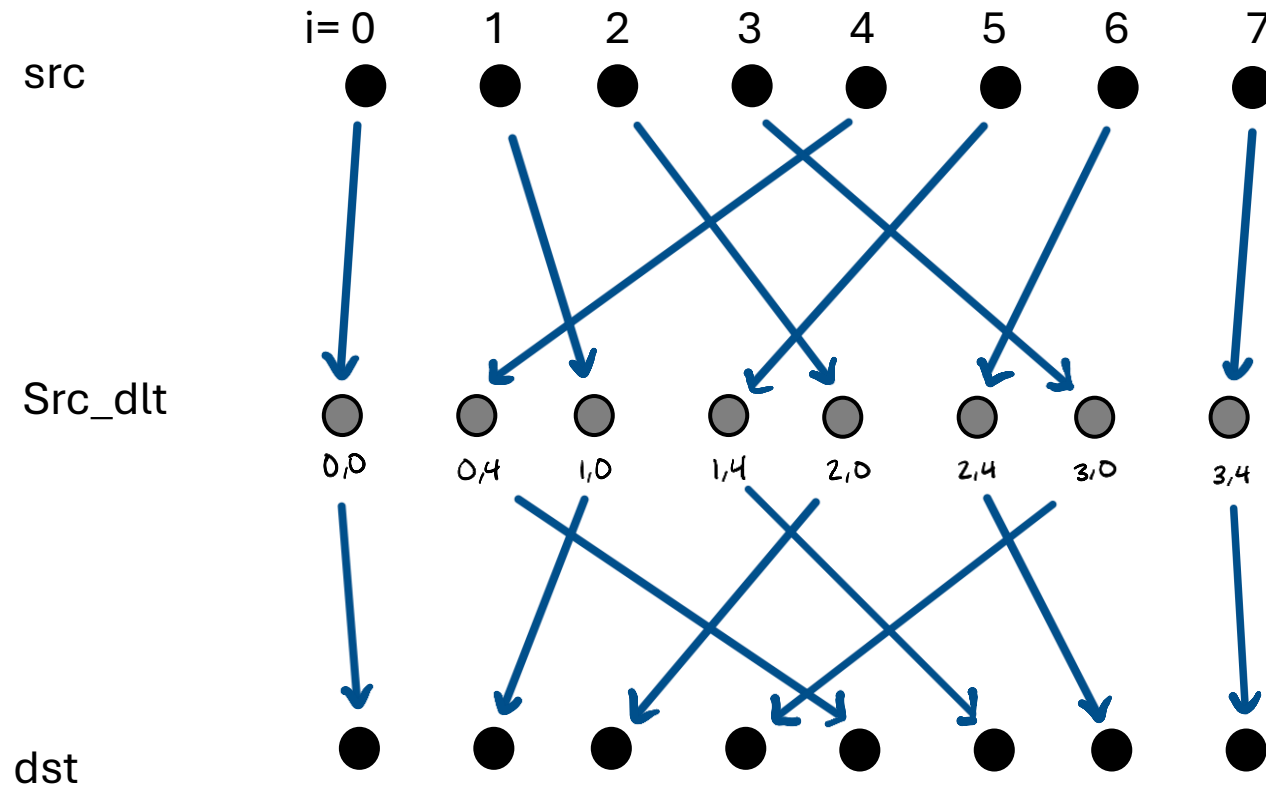




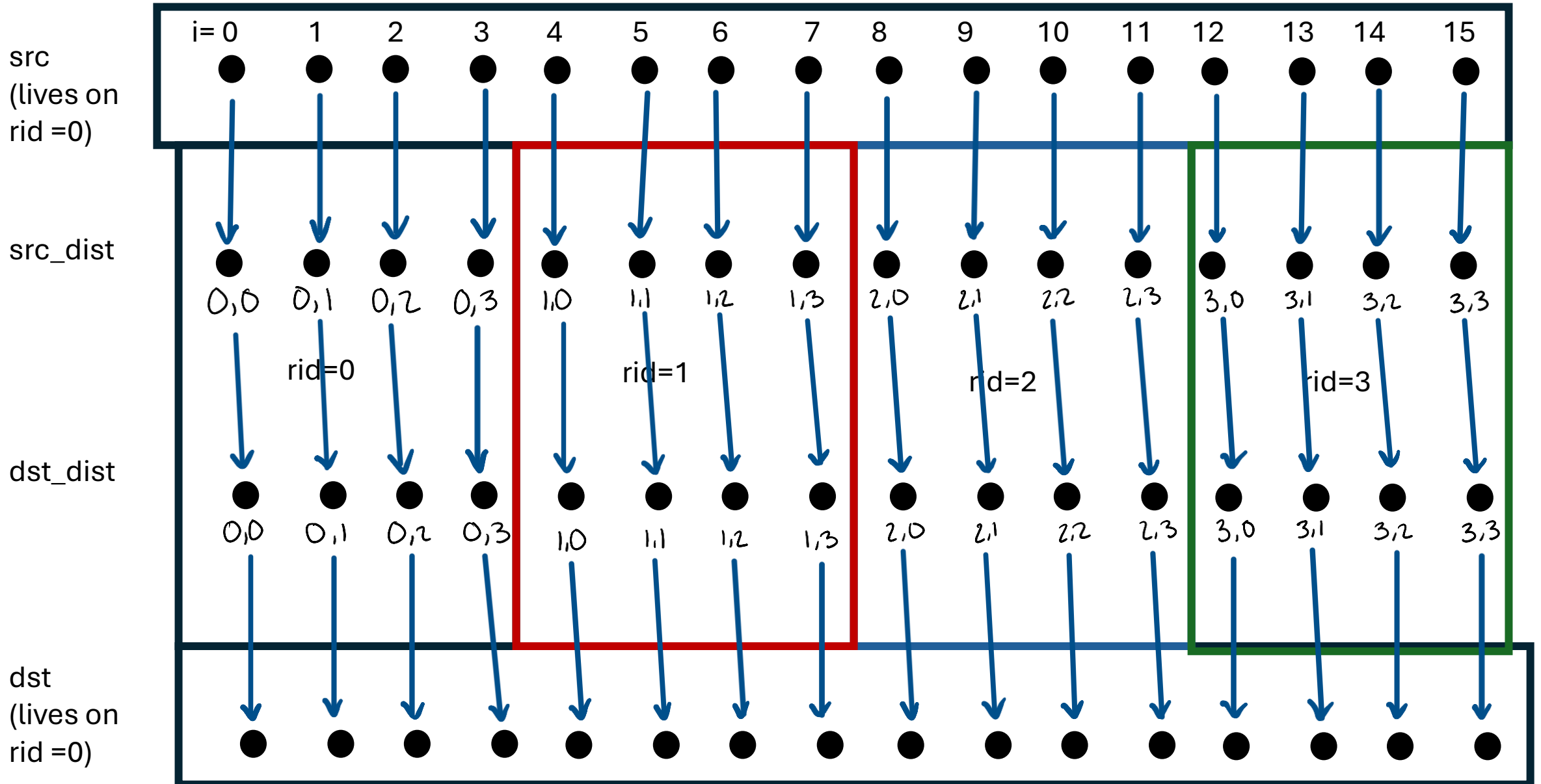
# DLT: 04.0 (student\_dlt\_inc\_2d)



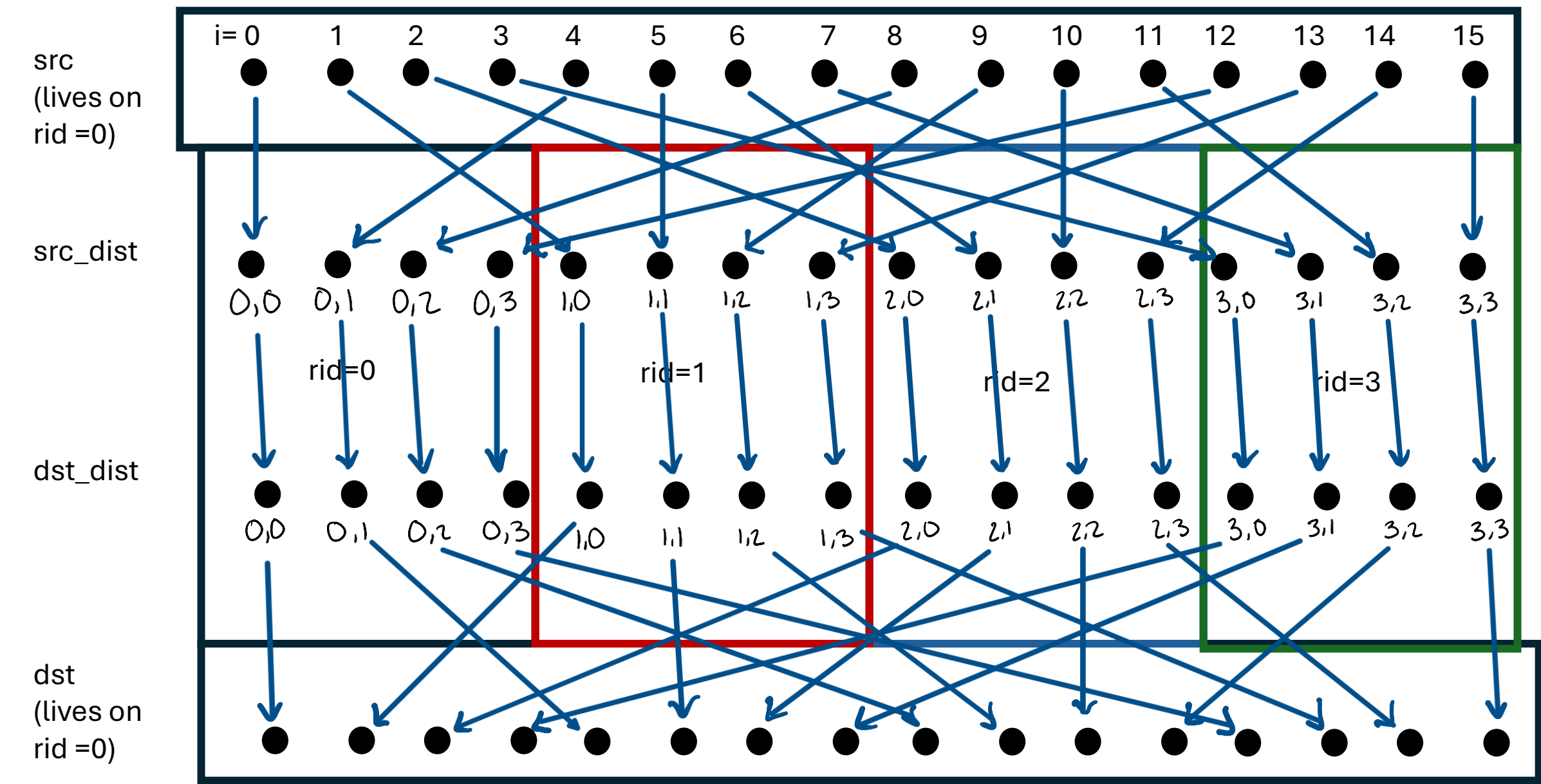
# DLT: 04.1 (student\_dlt\_inc\_2d)



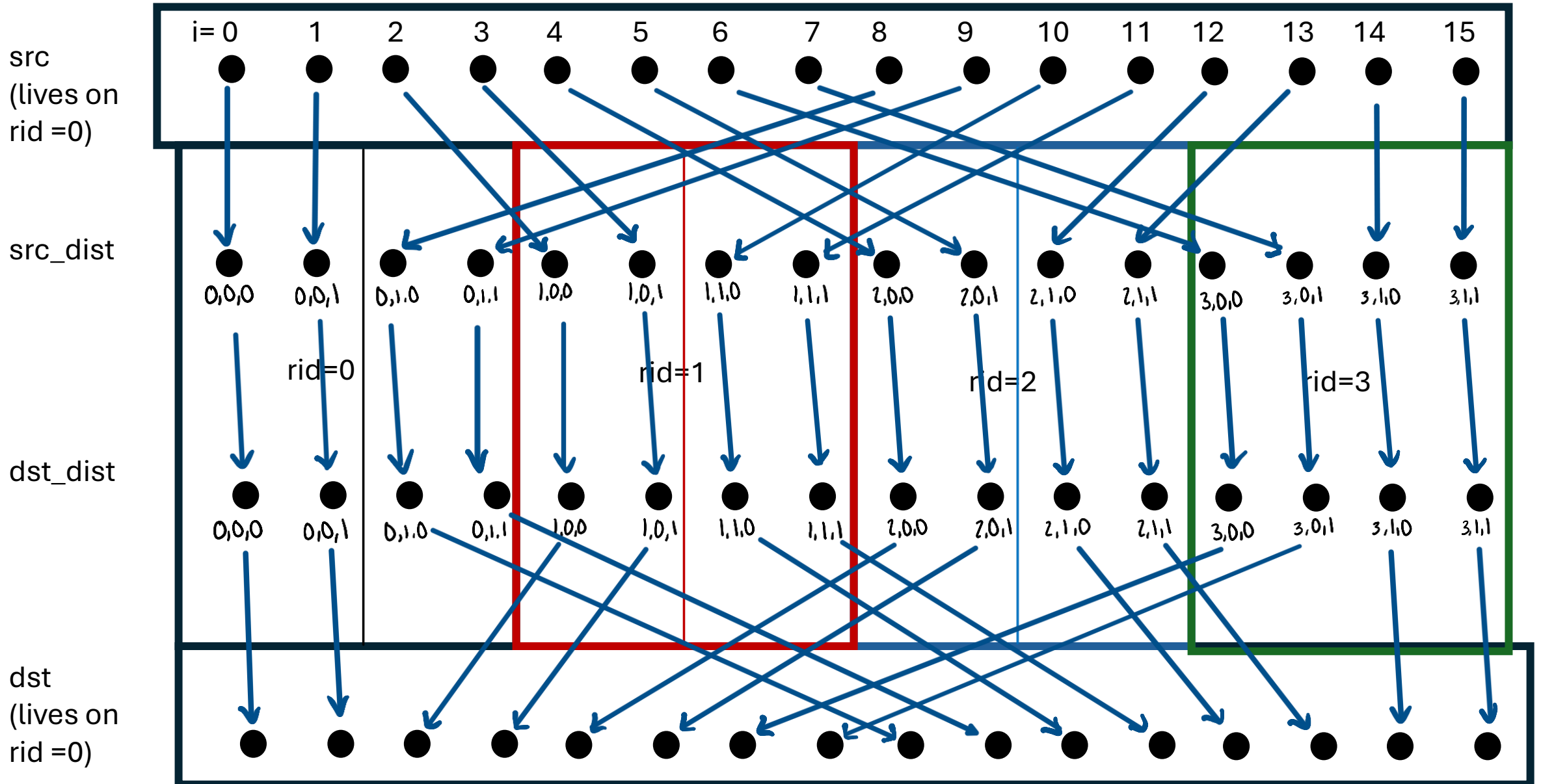
DIST: 05.0 (student\_dist\_block\_1d)



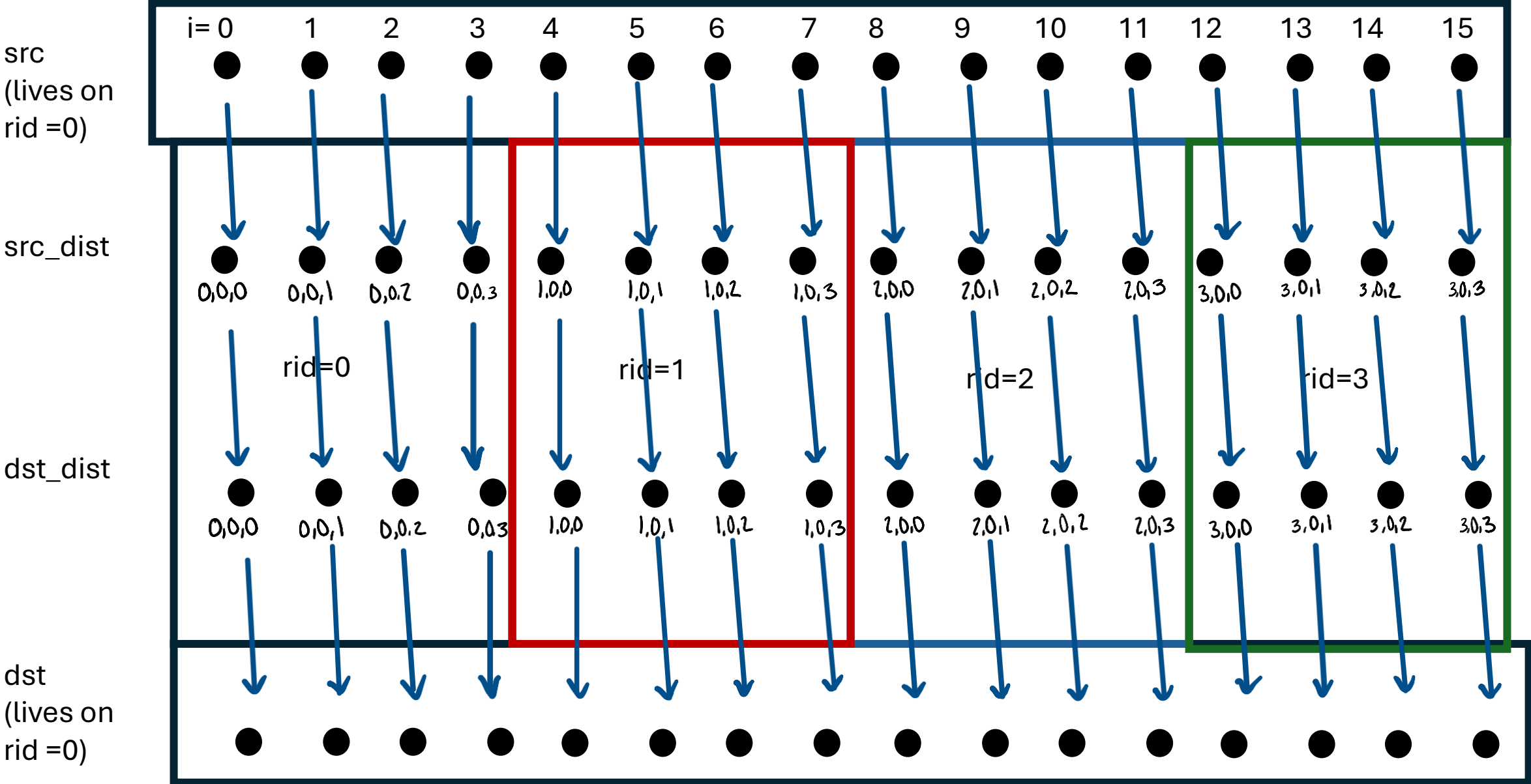
# DIST: 06.0 (student\_dist\_cyclic\_1d)



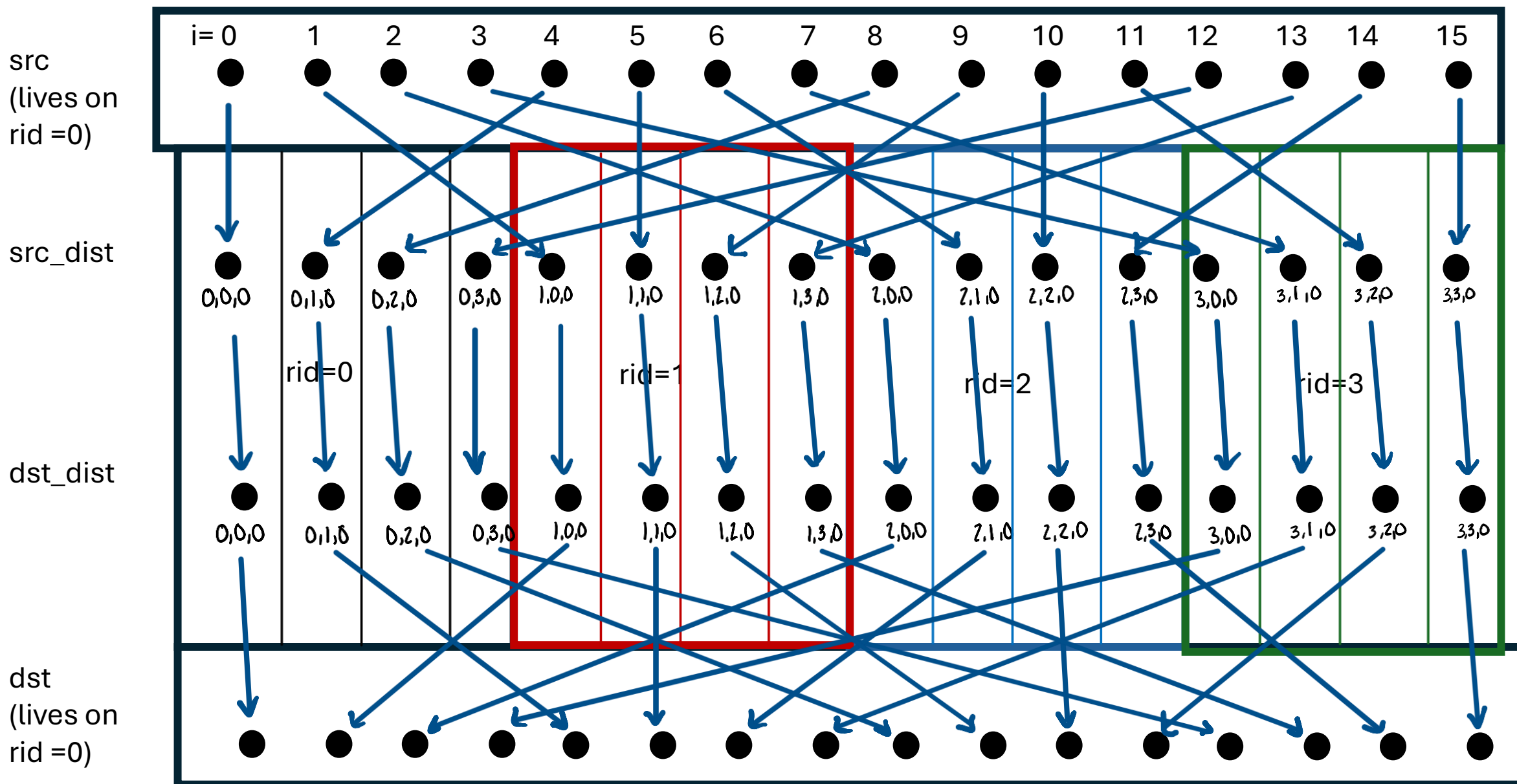
# DIST: 07.0 (student\_dist\_block\_cyclic\_1d blk=2)



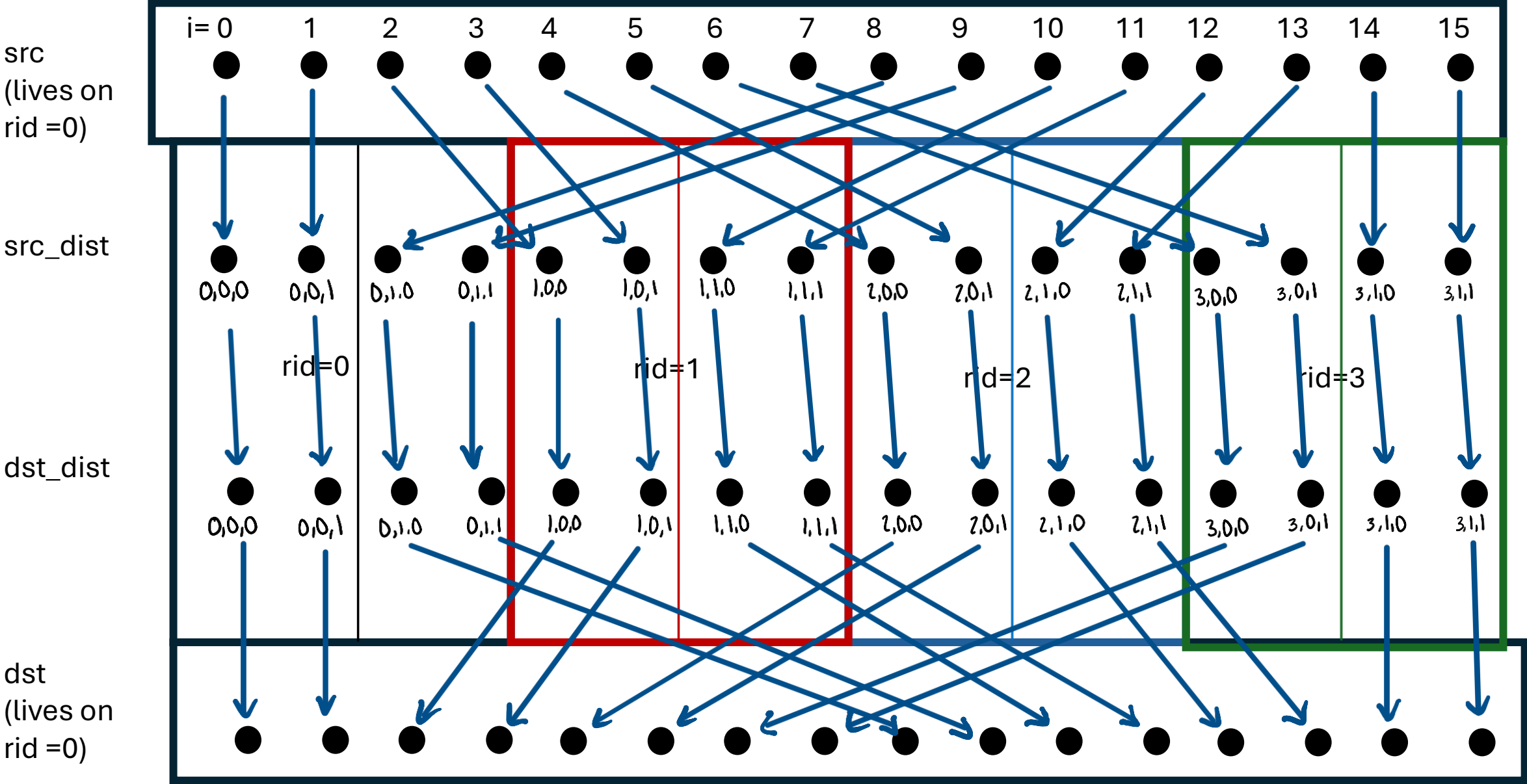
# DIST: 07.1 (student\_dist\_block\_cyclic\_1d blk=n/num\_ranks)



# DIST: 07.2 (student\_dist\_block\_cyclic\_1d blk=1)

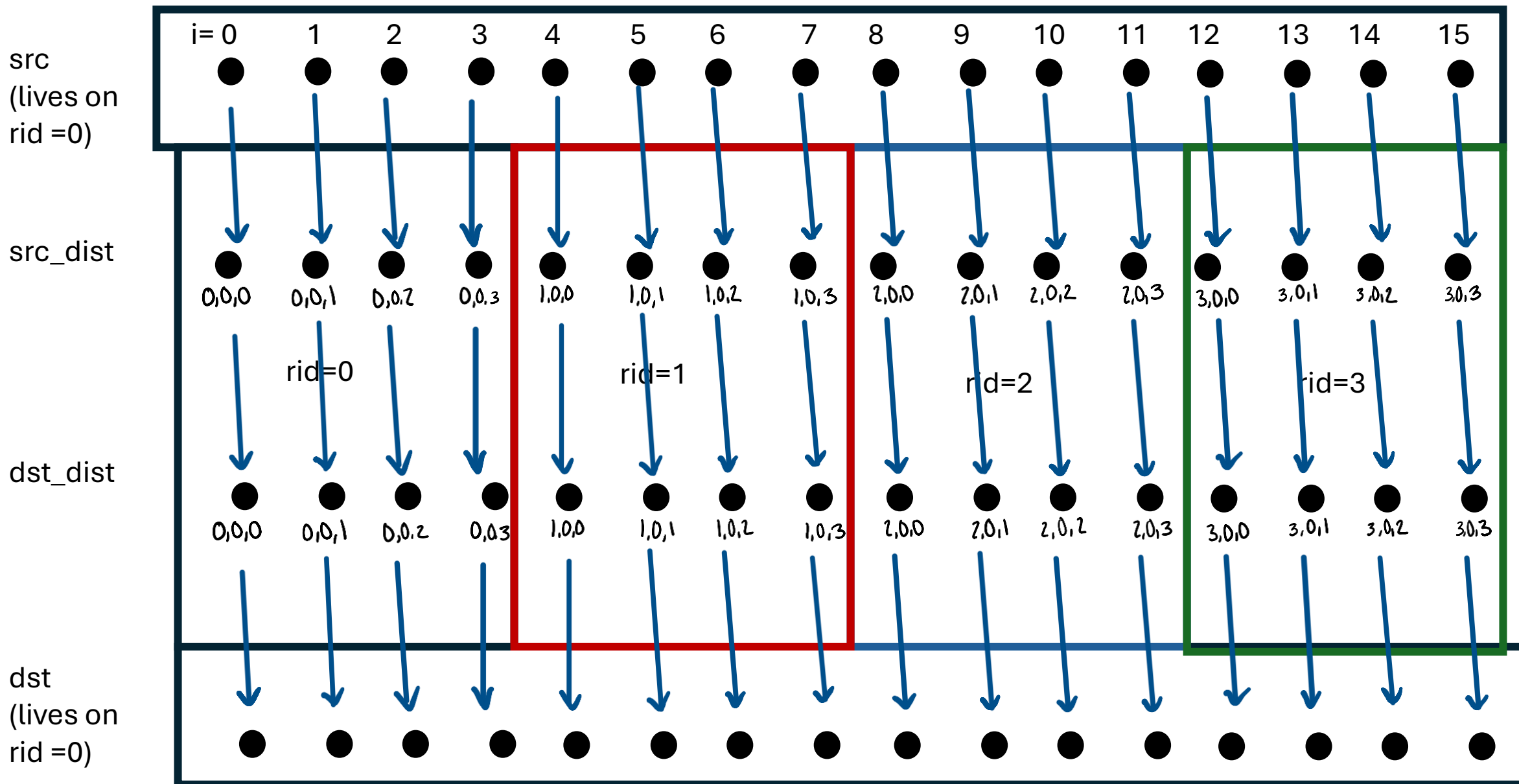


# DIST: 08.0 (student\_dist\_block\_cyclic\_1d\_the\_hard\_one blk=2)





## DIST: 08.1 (student\_dist\_block\_cyclic\_1d\_the\_hard\_one blk=n/num\_ranks)



DIST: 08.2 (student\_dist\_block\_cyclic\_1d\_the\_hard\_one blk=1)

