

```
1: subroutine meridional_advection
2:   Starts ratio exchange for ghost cells
3:   Compute zonal gradient on the interior
4:   Wait for end of communications
5:   Compute zonal gradient on the boundary
6:
7:   Starts zonal gradient exchange for ghost cells
8:   Compute meridional gradient on the interior
9:   Wait for end of communications
10:  Compute meridional gradient on the boundary
11:
12:  Starts meridional gradient exchange for ghost cells
13:  Compute meridional fluxes on the interior
14:  Wait for end of communications
15:  Compute meridional fluxes on the boundary
16:
17:  Update all ratios
18: end subroutine
```

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7:   Starts zonal gradient exchange for ghost cells
8:   Compute zonal fluxes on the interior
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12:  Update all ratios
13: end subroutine
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