```
[ceph: root@node /]# ceph osd getmap -o ./om
got osdmap epoch 387
```

2. Use the `--test-map-pgs` option of the `osdmaptool` command to display the actual distribution of PGs. The following command prints the distribution for the pool with the ID of 3:

```
[ceph: root@node /]# osdmaptool ./om --test-map-pgs --pool 3
osdmaptool: osdmap file './om'
pool 3 pg_num 50
#osd  count first primary c wt wt
osd.0    34    19 19 0.0184937 1
osd.1    39    14 14 0.0184937 1
osd.2    27    17 17 0.0184937 1
...output omitted...
```

   This output shows that `osd.2` has only 27 PGs but `osd.1` has 39.

3. Generate the commands to rebalance the PGs. Use the `--upmap` option of the `osdmaptool` command to store the commands in a file:

```
[ceph: root@node /]# osdmaptool ./om --upmap ./cmds.txt --pool 3
osdmaptool: osdmap file './om'
writing upmap command output to: ./cmds.txt
checking for upmap cleanups
upmap, max-count 100, max deviation 0.01
[ceph: root@node /]# cat ./cmds.txt
ceph osd pg-upmap-items 3.1 0 2
ceph osd pg-upmap-items 3.3 1 2
ceph osd pg-upmap-items 3.6 0 2
...output omitted...
```

4. Execute the commands:

```
[ceph: root@node /]# bash ./cmds.txt
set 3.1 pg_upmap_items mapping to [0->2]
set 3.3 pg_upmap_items mapping to [1->2]
set 3.6 pg_upmap_items mapping to [0->2]
...output omitted...
```

References

For more information, refer to *Red Hat Ceph Storage 5 Strategies Guide* at https://access.redhat.com/documentation/en-us/red_hat_ceph_storage/5/html-single/storage_strategies_guide/