

```

> with(tcore);
[PHI1, addrimcell, addrimhook, avec2nvec, avec2cyc, darray2ptn, findcell, findhookinpos, freqtab,
invphi1, ispos, istcore, lp, makebiw, markrimhookV2, nep, nepo, np, numnepo, nvec2alphavec,
nvec2ptn, printdarray, ptn2nvec, ptn2rvec, ptnnorm, randpcore, removerimhook, rvec,
tcorechanges, tcoreofptn, tcorepversion, tcores, tcrank, tquot, tresdiag, tresdiag2array,
veccombo]

```

```

> PTNS:=combinat[partition](14):
> L:=map(x->tcrank(x,5),PTNS):
> freqtab(L);
0, 27
1, 27
2, 27
3, 27
4, 27

```

This means there are 27 ptns of 14 with tcrank = k mod 5 for each k = 0,1,2,3,4.

We illustrate Bijection 1 of GKS.

```

> ptn:=[1,1,2,4,4,5,6,6,6]:
> ptntctq:=PHI1(ptn,5);
      ptntctq := [[2,2,2,4],[[1],[1,1],[ ],[ ],[2]]]

```

5-core of ptn is [2, 2, 2, 4]

5-quotient of ptn is [[1], [1, 1], [], [], [2]]

```

> invphi1(ptntctq,5);
      [1,1,2,4,4,5,6,6,6]

```