

## Experiment 3

### 1. Simple Weighting

given

$weighting = 3$

$bestYears = \langle 1992, 1502, 1493 \rangle$  // by rank

calculation

$output = \langle \langle 1992, 1502, 1493 \rangle, \langle 1992, 1502, 1493 \rangle, \langle 1992, 1502, 1493 \rangle \rangle$

Later on, the whole list is unlisted when peak ranks are computed.

So, a single list is created in which are no inner lists.

### 2. Double Weighting

given

$weighting = 3$

$bestYears = \langle 1992, 1502, 1493, 1801, 1723 \rangle$  // by rank

calculation

$output = \langle 1992, 1992, 1992, 1502, 1502, 1493, 1801, 1723 \rangle$

1992 has rank 1, so it is contained 3 times in the list.

1502 has rank 2 (less important), so it is contained 2 times in the list.

1493 has rank 3, so it is contained once.

The same holds for 1801, 1723, since there are no ranks lower 1.

### 3. Peak Ranks

given

$topYearsPerSample = \langle t_1, t_2, t_3 \rangle$  with

$t_1 = \langle \langle 1992, 1502, 1493 \rangle, \langle 1992, 1502, 1502 \rangle \rangle$

$t_2 = \langle \langle 1945, 1484, 1954 \rangle, \langle 1945, 1484, 1954 \rangle \rangle$

$t_3 = \langle \langle 2020, 1253, 1832 \rangle, \langle 2020, 1832, 1832 \rangle \rangle$

$samples_{years} = \langle 1992: 1997, 1484: 1489, 1832: 1837 \rangle$

calculation:  $t_1$

count correct year: 2

descending sorted counts:

startyear	count
1502	3
1992	2
1493	1

⇒ sample rank: 2

**calculation:**  $t_2$   
count correct year: 2

descending sorted counts:

startyear	count
1502	2
1992	2
1493	2

⇒ sample rank: 3 (last line with count 2)

**calculation:**  $t_3$   
count correct year: 3

descending sorted counts:

startyear	count
1832	3
2020	2
1253	1

⇒ sample rank: 1

$ranks = \langle 2, 3, 1 \rangle$

## 4. Powerset Table

score table:

year	score1	score2	score3
1992	0.1	0.2	0.3
1993	0.4	0.5	0.6
1994	0.7	0.8	0.9

power set table:

year	score1	score2	score3	score1 + score2	score1 + score3	score2 + score3	score1 + score2 + score3
1992	0.1	0.2	0.3	0.3	0.4	0.5	0.6
1993	0.4	0.5	0.6	0.9	1.0	1.1	1.5
1994	0.7	0.8	0.9	1.5	1.6	1.7	2.4