1. Determine Current Size of TEMP Tablespace

```
col name for a65
select name, round(bytes/1024/1024) "MB" from v$tempfile;
NAME                                                                   MB
---------------------------------------------------------------- ----------
/app/orcl/oradata/ORCL/datafile/o1_mf_temp_8x2yxk3r_.tmp              104

select tablespace_name,
       round(tablespace_size/1024/1024) "TS MB",
       round(allocated_space/1024/1024) "AS MB",
       round(free_space/1024/1024) "FS MB"
from   dba_temp_free_space;
TABLESPACE_NAME                    TS MB      AS MB      FS MB
------------------------------ ---------- ---------- ----------
TEMP                              104          8        100
```

2. Prepare Test Environment

```
drop user hajo cascade;

create user hajo identified by hajo;

grant connect to hajo;
grant create table to hajo;

alter user hajo quota unlimited on users;

conn hajo/hajo
```

```
create table table_one (col_one number, col_two varchar2(10));
create table table_two (col_three number, col_four  varchar2(10));

insert into table_one values ( 1,    'one');
insert into table_one values ( 2,    'two');

insert into table_two values (10,    'ten');
insert into table_two values (20, 'twenty');
insert into table_two values ( 5,   'five');
```

3. Blow Up the Test Tables

```
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);

insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);

insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);

insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);
insert into table_one (select * from table_one);


insert into table_two (select * from table_two);
insert into table_two (select * from table_two);
insert into table_two (select * from table_two);
insert into table_two (select * from table_two);
insert into table_two (select * from table_two);

insert into table_two (select * from table_two);
insert into table_two (select * from table_two);
insert into table_two (select * from table_two);
insert into table_two (select * from table_two);
insert into table_two (select * from table_two);
```

4. Start a Cross Join (Cartesian Product) With "ORDER BY" to Enforce Sort Operations (in Temp Tablespace)

==Invoke a <u>second terminal window</u> with a new SQL*Plus session as sysdba!==

AS HAJO (in first window)
```
select * from table_one cross join table_two order by 2, 1;
```

AS SYSDBA (in second window)
```
select name, round(bytes/1024/1024) "MB" from v$tempfile;
```

==Interrupt the cross join <u>in the first window</u> as soon as the tempfile growed dramatically!==

5. Determine Current Size of TEMP Tablespace again

```
col name for a65
select name, round(bytes/1024/1024) "MB" from v$tempfile;
NAME                                                                      MB
----------------------------------------------------------------- ----------
/app/orcl/oradata/ORCL/datafile/o1_mf_temp_8x2yxk3r_.tmp               1604

select tablespace_name,
       round(tablespace_size/1024/1024) "TS MB",
       round(allocated_space/1024/1024) "AS MB",
       round(free_space/1024/1024) "FS MB"
from   dba_temp_free_space;
TABLESPACE_NAME                    TS MB      AS MB      FS MB
------------------------------ ---------- ---------- ----------
TEMP                                1604       1556       1600
```

6. Shrink the TEMP Tablespace back to 100 MB and Check the Size again

Close the first window (hajo's connection)!

```
alter tablespace temp shrink space keep 100m;
Tablespace wurde geändert.
```

```
col name for a65
select name, round(bytes/1024/1024) "MB" from v$tempfile;
NAME                                                                    MB
---------------------------------------------------------------- ----------
/app/orcl/oradata/ORCL/datafile/o1_mf_temp_8x2yxk3r_.tmp               104

select tablespace_name,
       round(tablespace_size/1024/1024) "TS MB",
       round(allocated_space/1024/1024) "AS MB",
       round(free_space/1024/1024) "FS MB"
from   dba_temp_free_space;
TABLESPACE_NAME                     TS MB      AS MB      FS MB
------------------------------ ---------- ---------- ----------
TEMP                              104          4        100
```