

bite-sized.sql

SQL:
SOME | ANY
AND ALL

SOME | ANY AND ALL

1 IN is equivalent to = SOME and = ANY

```
/*
```

Return count of employees by year for employees *born in any* of the years in the filter table


These two queries are equivalent:

```
*/
```


```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear IN (SELECT yr FROM years)
GROUP BY BirthYear;
```

```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear = SOME(SELECT yr FROM years)
GROUP BY BirthYear;
```

SOME and
ANY are
equivalent



While IN also accepts a list of
values, SOME | ANY and ALL
must involve a sub-query



SOME | ANY AND ALL

2 NOT IN is equivalent to \neq ALL or \neq ALL

/*


Return count of employees by year for employees *not born in any* of the years in the filter table

These two queries are equivalent:

*/

```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear NOT IN (SELECT yr FROM years)
GROUP BY BirthYear;
```

```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear  $\neq$  ALL(SELECT yr FROM years)
GROUP BY BirthYear;
```



\neq can also be written \neq

SOME | ANY AND ALL

3 < (SELECT MAX(is equivalent to < SOME

/*


Return count of employees by year for employees born *before the largest* of the years in the filter table

These two queries are equivalent:

*/

```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear < (SELECT MAX(yr) FROM years)
GROUP BY BirthYear;
```

```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear < SOME (SELECT yr FROM years)
GROUP BY BirthYear;
```



Where we use <,
we can also use <=

SOME | ANY AND ALL

4

< (SELECT MIN(is equivalent to < ALL

/*

Return count of employees by year for employees born *before the smallest* of the years in the filter table

These two queries are equivalent:

*/

```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear < (SELECT MIN(yr) FROM years)
GROUP BY BirthYear;
```

```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear < ALL (SELECT yr FROM years)
GROUP BY BirthYear;
```

SOME | ANY AND ALL

5 > (SELECT MIN(is equivalent to > SOME

/*

Return count of employees by year for employees born *after the smallest* of the years in the filter table

These two queries are equivalent:

*/

```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear > (SELECT MIN(yr) FROM years)
GROUP BY BirthYear;
```

```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear > SOME (SELECT yr FROM years)
GROUP BY BirthYear;
```

SOME | ANY AND ALL

6 > (SELECT MAX(is equivalent to > ALL

/*

Return count of employees by year for employees born *after the largest* of the years in the filter table

These two queries are equivalent:

*/

```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear > (SELECT MAX(yr) FROM years)
GROUP BY BirthYear;
```

```
SELECT BirthYear, COUNT(*) AS recs
FROM employee
WHERE BirthYear > ALL (SELECT yr FROM years)
GROUP BY BirthYear;
```

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SOME | ANY AND ALL

Syntax 1	Syntax 2	Means
IN (subquery)	= SOME (subquery)	equal to any of the items returned by the subquery
NOT IN (subquery)	<> ALL (subquery)	not equal to any of the items
< (SELECT MAX(...	< SOME (subquery)	less than the largest of the items
< (SELECT MIN(...	< ALL (subquery)	less than the smallest of the items
> (SELECT MIN(...	> SOME (subquery)	greater than the smallest of the items
> (SELECT MAX(...	> ALL (subquery)	greater than the largest of the items
<= (SELECT MAX(...	<= SOME (subquery)	less than or equal to the largest of the items
<= (SELECT MIN(...	<= ALL (subquery)	less than or equal to the smallest of the items
>= (SELECT MIN(...	>= SOME (subquery)	greater than or equal to the smallest of the items
>= (SELECT MAX(...	>= ALL (subquery)	greater than or equal to the largest of the items
= SOME	= ANY	SOME and ANY are synonyms