

name	continent	area	population	gdp
Afghanistan	Asia	652230	25500100	20343000000
Albania	Europe	28748	2831741	12960000000
Algeria	Africa	2381741	37100000	188681000000
Andorra	Europe	468	78115	3712000000
Angola	Africa	1246700	20609294	100990000000
...				

1. Find the largest country (by area) in each continent, show the continent, the name and the area:

*Using correlated subqueries*

SELECT continent, name, area FROM world x

WHERE area >= ALL

(SELECT area FROM world y

WHERE y.continent=x.continent

AND area>0)

Output

continent	name	area
Africa	Algeria	2381741
Oceania	Australia	7692024
South America	Brazil	8515767
North America	Canada	9984670
Asia	China	9596961
...		

2. List each continent and the name of the country that comes first alphabetically.

```
SELECT x.continent, x.name
```

```
FROM world x
```

```
WHERE x.name <= ALL (SELECT y.name FROM world y WHERE x.continent=y.continent)
```

```
ORDER BY continent, name
```

Output

continent	name
Africa	Algeria
Asia	Afghanistan
Caribbean	Antigua and Barbuda
Eurasia	Armenia
Europe	Albania
...	

3. Find the continents where all countries have a population <= 25000000. Then find the names of the countries associated with these continents. Show name, continent and population.

```
SELECT name, continent, population FROM world x
```

```
WHERE 25000000>=ALL (
```

```
    SELECT population FROM world y
```

```
    WHERE x.continent=y.continent
```

```
    AND population>0)
```

Output

name	continent	population
Antigua and Barbuda	Caribbean	86295
Australia	Oceania	23545500
Bahamas	Caribbean	351461
Barbados	Caribbean	285000

Cuba	Caribbean	11167325
...		

4. Some countries have populations more than three times that of all of their neighbours (in the same continent). Give the countries and continents.

```
SELECT name, continent
```

```
FROM world x
```

```
WHERE population >
```

```
-- this sub query finds each neighbour (not including itself) and returns the max populations
multiplied by 3
```

```
(SELECT 3 * MAX(population)
```

```
FROM world y
```

```
WHERE x.continent = y.continent
```

```
AND x.name <> y.name)
```

Output

name	continent
Australia	Oceania
Brazil	South America
Russia	Eurasia