1. **Read the notes about this table. Observe the result of running this SQL command to show the name, continent and population of all countries.**

SELECT name, continent, population FROM world

2. **How to use WHERE to filter records. Show the name for the countries that have a population of at least 200 million. 200 million is 200000000, there are eight zeros.**

SELECT name FROM world

WHERE population >= 200000000

3. **Give the name and the per capita GDP for those countries with a population of at least 200 million.**

HELP:How to calculate per capita GDP

Per capita GDP is the GDP divided by the population GDP/population

SELECT name, gdp/population as 'per capita GDP' FROM world

WHERE population >= 200000000

4. **Show the name and population in millions for the countries of the continent 'South America'. Divide the population by 1000000 to get population in millions.**

SELECT name, population/1000000 as population FROM world

WHERE continent = 'South America'

5. **Show the name and population for France, Germany, Italy**

SELECT name, population FROM world

WHERE name IN ('France', 'Germany', 'Italy')

6. **Show the countries which have a name that includes the word 'United'**

SELECT name FROM world

WHERE name LIKE 'United%'

7. **Two ways to be big: A country is big if it has an area of more than 3 million sq km or it has a population of more than 250 million. Show the countries that are big by area or big by population. Show name, population and area.**

SELECT name, population, area FROM world

WHERE area > 3000000 OR population >250000000

8. **Exclusive OR (XOR). Show the countries that are big by area (more than 3 million) or big by population (more than 250 million) but not both. Show name, population and area.**

Australia has a big area but a small population, it should be **included**.

Indonesia has a big population but a small area, it should be **included**.

China has a big population **and** big area, it should be **excluded**.

United Kingdom has a small population and a small area, it should be **excluded**.

SELECT name, population, area FROM world

WHERE (area>=3000000 AND population <= 250000000) OR (area<=3000000 AND population >= 250000000)

9. **Show the name and population in millions and the GDP in billions for the countries of the continent 'South America'. Use the ROUND function to show the values to two decimal places.**

For South America show population in millions and GDP in billions both to 2 decimal places.

Millions and billions

Divide by 1000000 (6 zeros) for millions. Divide by 1000000000 (9 zeros) for billions.

SELECT name, ROUND ((population/1000000),2), ROUND ((gdp/1000000000),2) FROM world

WHERE continent= 'South America'

10. **Show the name and per-capita GDP for those countries with a GDP of at least one trillion (1000000000000; that is 12 zeros). Round this value to the nearest 1000.**

Show per-capita GDP for the trillion dollar countries to the nearest $1000.

SELECT name, ROUND(GDP/population,-3) FROM world

WHERE GDP>= 1000000000000

11. **Greece has capital Athens.**

Each of the strings 'Greece', and 'Athens' has 6 characters.

Show the name and capital where the name and the capital have the same number of characters.

You can use the LENGTH function to find the number of characters in a string

SELECT name, capital FROM world

WHERE LENGTH(name)=LENGTH(capital)

12. The capital of Sweden is Stockholm. Both words start with the letter 'S'.

Show the name and the capital where the first letters of each match. Don't include countries where the name and the capital are the same word.

You can use the function LEFT to isolate the first character.

You can use <> as the **NOT EQUALS** operator.

SELECT name, capital FROM world

WHERE (left(name,1)=left(capital,1)) AND (name<>capital)

13. Equatorial Guinea and Dominican Republic have all of the vowels (a e i o u) in the name. They don't count because they have more than one word in the name.

Find the country that has all the vowels and no spaces in its name.

You can use the phrase name NOT LIKE '%a%' to exclude characters from your results.

The query shown misses countries like Bahamas and Belarus because they contain at least one 'a'

SELECT name FROM world

WHERE name LIKE '%a%'

AND name LIKE '%e%'

AND name LIKE '%o%'

AND name LIKE '%u%'

AND name LIKE '%i%'

AND name NOT LIKE '% %'