1. ```sql
   WITH Country_Language AS (
   SELECT C.Name AS Country_Name,
   COUNT(CL.Language) AS Total_Language
   FROM Country C
   INNER JOIN Countrylanguage CL
   ON C.Code = CL.CountryCode
   GROUP BY Country_Name)

   SELECT * FROM Country_Language
   WHERE Total_Language > (SELECT AVG(Total_Language) FROM Country_Language)
   ORDER BY Total_Language DESC
   LIMIT 10;

   WITH Country_Language AS (
   SELECT C.Name AS Country_Name,
   COUNT(CL.Language) AS Total_Language
   FROM Country C
   LEFT JOIN Countrylanguage CL
   ON C.Code = CL.CountryCode
   GROUP BY Country_Name)
   SELECT AVG(Total_Language) FROM Country_Language;

   SELECT C.Name AS Country_Name,
   COUNT(CL.Language) AS Total_Language
   FROM Country C
   LEFT JOIN Countrylanguage CL
   ON C.Code = CL.CountryCode
   GROUP BY Country_Name;
   ```

2. ```sql
   SELECT Name,
   GovernmentForm,
   SUM(Population) OVER () AS World_Population,
   Population / SUM(Population) OVER () * 100 AS Percentage,
   ROW_NUMBER () OVER (ORDER BY CODE) AS Row_Index
   FROM Country
   ORDER BY Percentage DESC
   LIMIT 10;

   select ROW_NUMBER () OVER () AS Row_Index from country;

   select sum(population) from country;
   select sum(population) over() from country;
   ```

```
select population / SUM(Population) OVER () * 100 AS Percentage from country;
select population / SUM(Population) * 100 AS Percentage from country;

select * from country;
```

3.
```
WITH City_Count AS (
SELECT CountryCode,
COUNT(Name) AS Number_of_City
FROM City
GROUP BY 1)
SELECT C.Continent,
C.Region,
SUM(CT.Number_of_City) AS Number_of_City,
ROW_NUMBER() OVER (PARTITION BY C.Continent) AS Row_Group
FROM Country C, City_Count CT
WHERE C.Code = CT.CountryCode AND C.Continent IN ('Asia', 'Europe')
GROUP BY 1, 2;

select continent, name, ROW_NUMBER() OVER (PARTITION BY Continent) AS
Row_Group from country;

SELECT CountryCode,
COUNT(Name) AS Number_of_City
FROM City
GROUP BY 1;
```

4.
```
with city_count as(
select countrycode, count(name) as number_of_city
from city
group by countrycode),

country_code as(
select code, region, name
from country)
-- select * from country_code;
select name as country, region, number_of_city from city_count
join country_code
on city_count.countrycode = country_code.code
order by number_of_city desc
limit 10;
```

5.
```
select name, continent, population,
rank() over(partition by continent order by population) as rank_population
from country limit 10;
```

6. SELECT C.Continent,
   SUM(CT.Population) AS Total_Capital_Population,
   AVG(C.GNP) AS Average_GNP,
   RANK() OVER (ORDER BY SUM(CT.Population) DESC) AS Rank_Population,
   RANK() OVER (ORDER BY AVG(C.GNP) DESC) AS Rank_GNP
   FROM City CT INNER JOIN Country C
   ON C.Capital = CT.Id
   GROUP BY 1
   ORDER BY 4,5;

   select * from country;
   select * from city;

   select * fROM City CT INNER JOIN Country C
   ON C.Capital = CT.Id where countrycode = 'idn';

7. WITH GNP_Table AS (
   SELECT Name AS Country_Name,
   ROUND(GNP / SUM(GNP) OVER () * 100, 2) AS GNP_Percentage
   FROM Country
   ORDER BY GNP_Percentage DESC)
   SELECT Country_Name,
   GNP_Percentage,
   ROUND(SUM(GNP_Percentage) OVER (ORDER BY GNP_Percentage DESC ROWS
   BETWEEN
   UNBOUNDED PRECEDING AND CURRENT ROW), 2) AS Cumulative_GNP,
   RANK() OVER (ORDER BY GNP_Percentage DESC) AS GNP_Rank,
   NTILE(4) OVER () AS Market_Priority_1234 FROM GNP_Table
   WHERE GNP_Percentage > 1;

   SELECT Name AS Country_Name,
   ROUND(GNP / SUM(GNP) OVER () * 100, 2) AS GNP_Percentage
   FROM Country
   ORDER BY GNP_Percentage DESC;

   WITH GNP_Table AS (
   SELECT Name AS Country_Name,
   ROUND(GNP / SUM(GNP) OVER () * 100, 2) AS GNP_Percentage
   FROM Country
   ORDER BY GNP_Percentage DESC)
   select ROUND(SUM(GNP_Percentage) OVER (ORDER BY GNP_Percentage DESC
   ROWS BETWEEN

UNBOUNDED PRECEDING AND CURRENT ROW), 2) AS Cumulative_GNP from GNP_Table;

8. with avg_length_film as (
   select avg(length) as avg_length from film
)

   select film_id, title, rental_duration from film
   where length > (select avg_length from avg_length_film)
   order by rental_duration desc
   limit 5;

9. with avg_length_film as (
   select rating, avg(length) as avg_length from film
   group by rating
)

   select title, length from film
   where length between (select avg_length from avg_length_film where rating = 'pg')
   and (select avg_length from avg_length_film where rating = 'pg-13')
   order by length
   limit 5;

10.