**Cube Rollup & Grouping Set**

--1

select count(supplierid) countSupp, city, Region, GROUPING(city) citynulls, GROUPING(region) regionnulls,

GROUPING\_id(city, Region) dimen

from Suppliers

where SupplierID between 1 and 5

group by grouping sets (city,Region, (city, Region))

having GROUPING(city) = 1 or GROUPING(region) = 1

order by dimen

--or

select count(supplierid) countSupp, city, Region, GROUPING(city) citynulls, GROUPING(region) regionnulls,

GROUPING\_id(city, Region) dim

from Suppliers

where SupplierID between 1 and 5

group by grouping sets (city,Region)

order by dim

--2

select count(customerid) countCust, City, Country, GROUPING\_id(city, Country) dim

from Customers

group by cube (City,Country)

having GROUPING\_id(city, Country) = 1

--3

select row\_number() over (partition by city order by city) RowNum, CustomerID, City

from Customers

--4

select \*

from (select row\_number() over (order by hiredate) RowNum, EmployeeID, HireDate

from Employees) emp

where RowNum between 4 and 8

--5

select \*

from (select row\_number() over (order by unitprice) RowNum, \*

from Products) prod

where RowNum = 18

--or

select \*

from Products

order by UnitPrice

offset 17 rows fetch next 1 row only

--6

select distinct (CustomerID)

from (select row\_number() over (partition by customerid order by orderid) RowNum, CustomerID

from Orders) ords

where RowNum > 14

--or

select CustomerID, count (OrderID) orders

from Orders

group by CustomerID

having count(orderid) > 14

order by orders

--7

select count(orderid) OrdersByEmp, EmployeeID, GROUPING\_id(EmployeeID) dim

from Orders

group by cube (EmployeeID)

--or

select count(orderid) OrdersByEmp, EmployeeID, GROUPING\_id(EmployeeID) dim

from Orders

group by grouping sets (EmployeeID, ())

--8

select \*

from (select count(orderid) over (partition by year(orderdate)

order by orderdate) as OrdersByYear, \*

from Orders) ords

where year(OrderDate) = 1997 and OrdersByYear between 11 and 20

--9

select Products.\*

from (select row\_number() over (order by categoryname) catRowNum, \*

from Categories) categ

join Products

on categ.CategoryID = Products.CategoryID and catRowNum = 2

--10

select \*

from (select month(OrderDate) MonthsOf1996, min(orderid) FirstOrderByMonth

from orders

where year(orderdate) = 1996

group by month(OrderDate)) FirstOrders

join Orders

on FirstOrders.FirstOrderByMonth = Orders.OrderID

--11

select \*

from (select month(OrderDate) MonthsOf1996, max(orderid) FirstOrderByMonth

from orders

where year(orderdate) = 1996

group by month(OrderDate)) FirstOrders

join Orders

on FirstOrders.FirstOrderByMonth = Orders.OrderID