```sql
select * from df_orders


-- Find Top 10 Highest Revenue Generating Products
SELECT
    TOP 10 product_id,
    SUM(sale_price) AS sales
FROM df_orders
GROUP BY product_id
ORDER BY sales DESC;

-- Find Top 5 highest selling product in each region
WITH cte AS (
    SELECT
        region,
        product_id,
        SUM(sale_price) AS sales
    FROM df_orders
    GROUP BY region, product_id
)
SELECT
    *
FROM (
    SELECT
        *,
        ROW_NUMBER() OVER(PARTITION BY region ORDER BY sales DESC) AS rn
    FROM cte
) A
WHERE rn <= 5;

-- Find Month over Month Growth Comparison for 2022 and 2023 sales
-- Ex: JAN 2022 vs JAN 2023
WITH cte AS (
SELECT
    YEAR(order_date) AS order_year,
    MONTH(order_date) AS order_month,
    SUM(sale_price) AS sales
FROM df_orders
GROUP BY YEAR(order_date), MONTH(order_date)
--ORDER BY YEAR(order_date), MONTH(order_date)
)
SELECT
    order_month,
    ROUND(
        SUM(CASE WHEN order_year=2022 THEN sales ELSE 0 END)
        , 2) AS sales_2022,
    ROUND(
        SUM(CASE WHEN order_year=2023 THEN sales ELSE 0 END)
        , 2) AS sales_2023
FROM cte
GROUP BY order_month
ORDER BY order_month;
```

```sql
-- For each category which month had highest sales
WITH cte AS (
    SELECT
        category,
        FORMAT(order_date, 'yyyyMM') AS order_year_month,
        SUM(sale_price) AS sales
    FROM df_orders
    GROUP BY category, FORMAT(order_date, 'yyyyMM')
)

SELECT
    *
FROM(
    SELECT
            *,
            ROW_NUMBER() OVER(PARTITION BY category ORDER BY sales DESC) AS rn
    FROM cte
    ) a
WHERE rn=1;

-- Which sub category had the highest growth by profit in 2023 compare to 2022
WITH cte AS (
SELECT
    sub_category,
    YEAR(order_date) AS order_year,
    SUM(profit) AS annual_profit
FROM df_orders
GROUP BY sub_category, YEAR(order_date)
), cte2 AS (
    SELECT
        sub_category,
        ROUND(
            SUM(CASE WHEN order_year=2022 THEN annual_profit ELSE 0 END)
            , 2) AS annual_profit_2022,
        ROUND(
            SUM(CASE WHEN order_year=2023 THEN annual_profit ELSE 0 END)
            , 2) AS annual_profit_2023
    FROM cte
    GROUP BY sub_category)
SELECT
    TOP 1 *,
    ROUND(
    (annual_profit_2023 - annual_profit_2022)*100/annual_profit_2022, 2
    ) AS growth_by_profit
FROM cte2
ORDER BY growth_by_profit DESC;
```