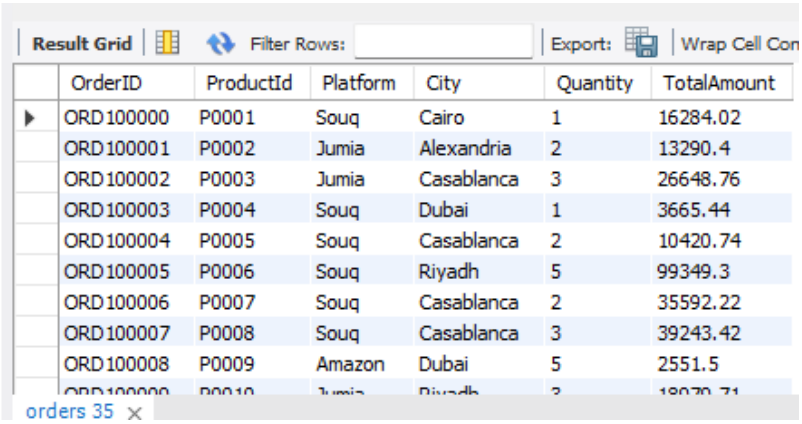
```
create database ecommerce;
use ecommerce;
```

/*Display all columns from the orders table.*/

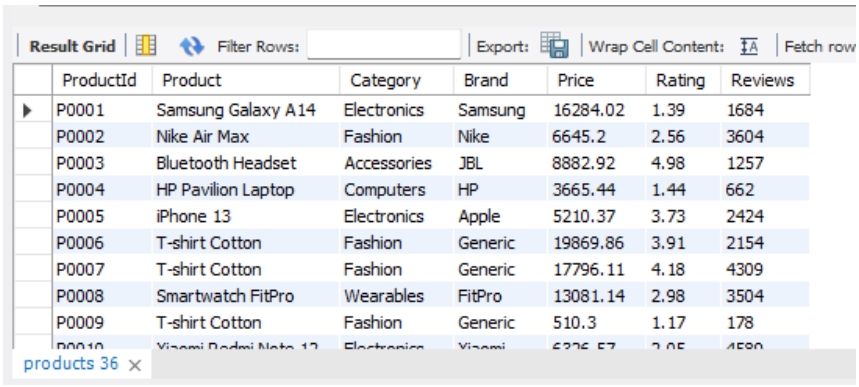
```
select * from orders;
```



OrderID	ProductId	Platform	City	Quantity	TotalAmount
ORD100000	P0001	Souq	Cairo	1	16284.02
ORD100001	P0002	Jumia	Alexandria	2	13290.4
ORD100002	P0003	Jumia	Casablanca	3	26648.76
ORD100003	P0004	Souq	Dubai	1	3665.44
ORD100004	P0005	Souq	Casablanca	2	10420.74
ORD100005	P0006	Souq	Riyadh	5	99349.3
ORD100006	P0007	Souq	Casablanca	2	35592.22
ORD100007	P0008	Souq	Casablanca	3	39243.42
ORD100008	P0009	Amazon	Dubai	5	2551.5

/*Display all columns from the products table.*/

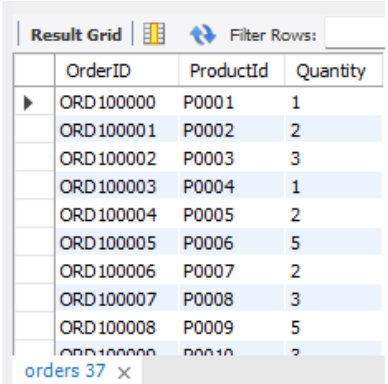
```
select * from products;
```



ProductId	Product	Category	Brand	Price	Rating	Reviews
P0001	Samsung Galaxy A14	Electronics	Samsung	16284.02	1.39	1684
P0002	Nike Air Max	Fashion	Nike	6645.2	2.56	3604
P0003	Bluetooth Headset	Accessories	JBL	8882.92	4.98	1257
P0004	HP Pavilion Laptop	Computers	HP	3665.44	1.44	662
P0005	iPhone 13	Electronics	Apple	5210.37	3.73	2424
P0006	T-shirt Cotton	Fashion	Generic	19869.86	3.91	2154
P0007	T-shirt Cotton	Fashion	Generic	17796.11	4.18	4309
P0008	Smartwatch FitPro	Wearables	FitPro	13081.14	2.98	3504
P0009	T-shirt Cotton	Fashion	Generic	510.3	1.17	178

/*Show only order_id, product_id, and quantity from orders.*/

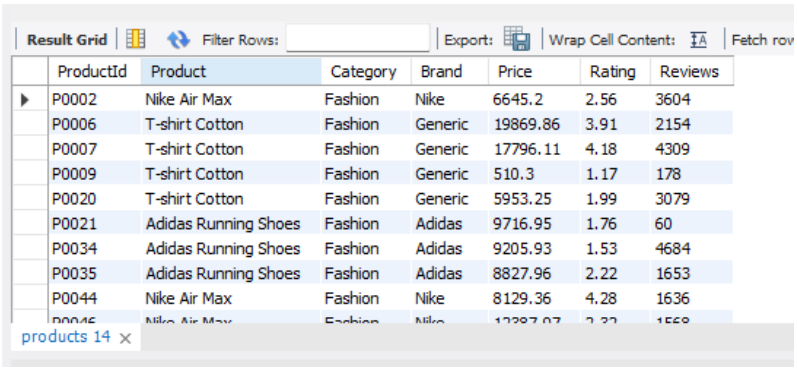
```
select  OrderID, ProductId, Quantity from orders;
```



OrderID	ProductId	Quantity
ORD100000	P0001	1
ORD100001	P0002	2
ORD100002	P0003	3
ORD100003	P0004	1
ORD100004	P0005	2
ORD100005	P0006	5
ORD100006	P0007	2
ORD100007	P0008	3
ORD100008	P0009	5

/*Show all products that belong to a specific category (pick any one category).*/

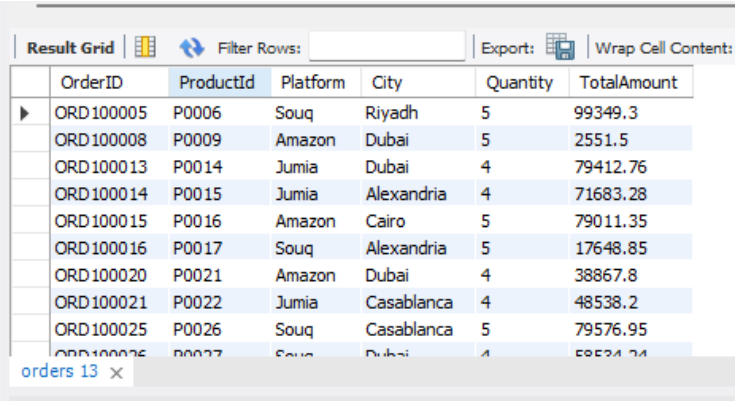
select * from products where Category = 'Fashion';



ProductId	Product	Category	Brand	Price	Rating	Reviews
P0002	Nike Air Max	Fashion	Nike	6645.2	2.56	3604
P0006	T-shirt Cotton	Fashion	Generic	19869.86	3.91	2154
P0007	T-shirt Cotton	Fashion	Generic	17796.11	4.18	4309
P0009	T-shirt Cotton	Fashion	Generic	510.3	1.17	178
P0020	T-shirt Cotton	Fashion	Generic	5953.25	1.99	3079
P0021	Adidas Running Shoes	Fashion	Adidas	9716.95	1.76	60
P0034	Adidas Running Shoes	Fashion	Adidas	9205.93	1.53	4684
P0035	Adidas Running Shoes	Fashion	Adidas	8827.96	2.22	1653
P0044	Nike Air Max	Fashion	Nike	8129.36	4.28	1636

/*Find all orders where the quantity is greater than 3.*/

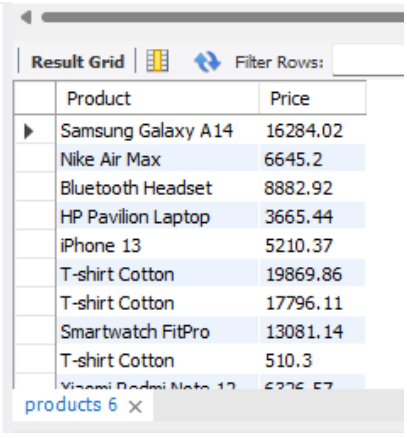
select * from orders where Quantity > 3;



OrderID	ProductId	Platform	City	Quantity	TotalAmount
ORD100005	P0006	Souq	Riyadh	5	99349.3
ORD100008	P0009	Amazon	Dubai	5	2551.5
ORD100013	P0014	Jumia	Dubai	4	79412.76
ORD100014	P0015	Jumia	Alexandria	4	71683.28
ORD100015	P0016	Amazon	Cairo	5	79011.35
ORD100016	P0017	Souq	Alexandria	5	17648.85
ORD100020	P0021	Amazon	Dubai	4	38867.8
ORD100021	P0022	Jumia	Casablanca	4	48538.2
ORD100025	P0026	Souq	Casablanca	5	79576.95

/*Display products whose price is greater than 500.*/

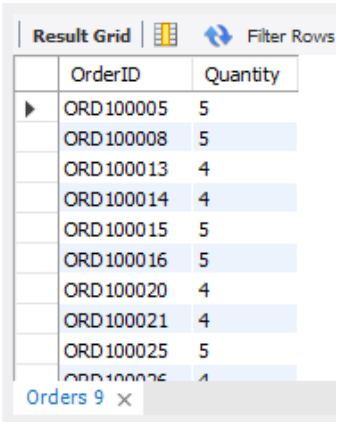
select Product, Price from products where Price > 500;



Product	Price
Samsung Galaxy A14	16284.02
Nike Air Max	6645.2
Bluetooth Headset	8882.92
HP Pavilion Laptop	3665.44
iPhone 13	5210.37
T-shirt Cotton	19869.86
T-shirt Cotton	17796.11
Smartwatch FitPro	13081.14
T-shirt Cotton	510.3

/*Show all orders where the quantity is greater than the average quantity of all orders.*/

select OrderID, Quantity from Orders where Quantity > (select avg(Quantity) from Orders);

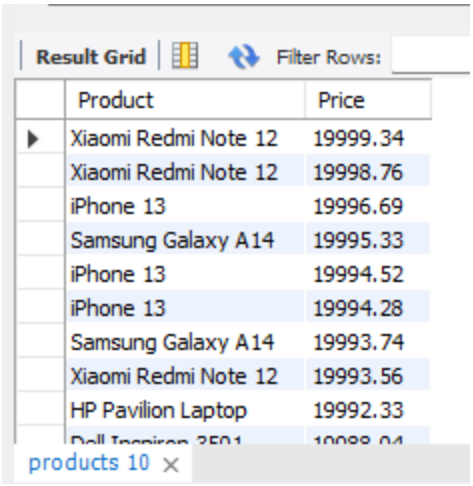


OrderID	Quantity
ORD100005	5
ORD100008	5
ORD100013	4
ORD100014	4
ORD100015	5
ORD100016	5
ORD100020	4
ORD100021	4
ORD100025	5

Orders 9

/*Display products sorted by price in descending order.*/

select Product, Price from products order by Price desc;

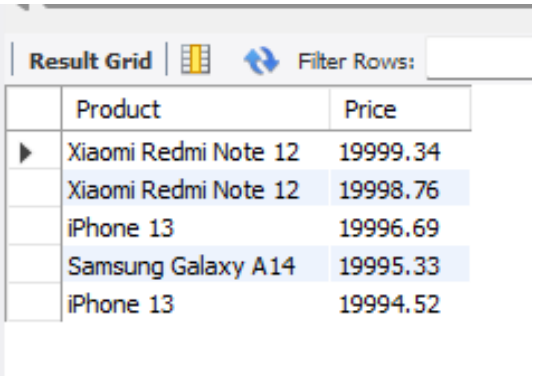


Product	Price
Xiaomi Redmi Note 12	19999.34
Xiaomi Redmi Note 12	19998.76
iPhone 13	19996.69
Samsung Galaxy A14	19995.33
iPhone 13	19994.52
iPhone 13	19994.28
Samsung Galaxy A14	19993.74
Xiaomi Redmi Note 12	19993.56
HP Pavilion Laptop	19992.33

products 10

/*Show the top 5 most expensive products.*/

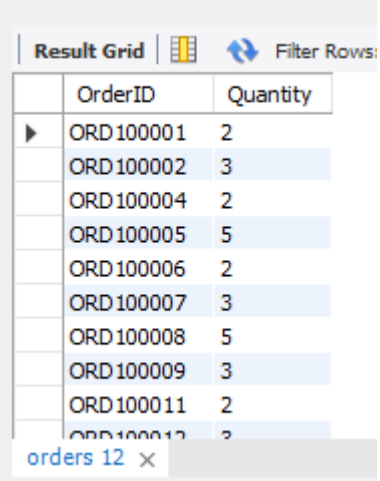
select Product, Price from products order by price desc limit 5;



Product	Price
Xiaomi Redmi Note 12	19999.34
Xiaomi Redmi Note 12	19998.76
iPhone 13	19996.69
Samsung Galaxy A14	19995.33
iPhone 13	19994.52

/*Find orders where quantity is between 2 and 5.*/

select OrderID, Quantity from orders where quantity between 2 and 5;



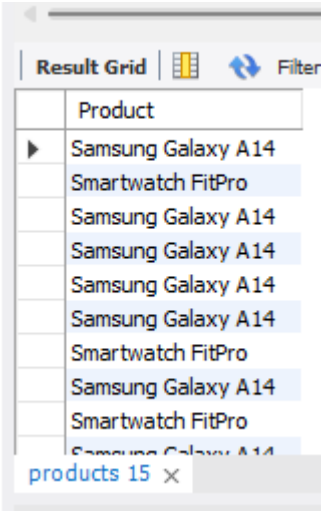
Result Grid | Filter Rows:

OrderID	Quantity
ORD100001	2
ORD100002	3
ORD100004	2
ORD100005	5
ORD100006	2
ORD100007	3
ORD100008	5
ORD100009	3
ORD100011	2

orders 12 ×

/*Display products whose name contains a specific word (use LIKE).*/

select Product from products where Product like 'S%';



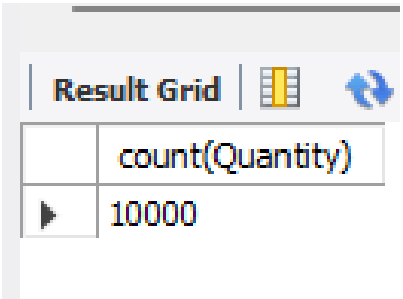
Result Grid | Filter

Product
Samsung Galaxy A14
Smartwatch FitPro
Samsung Galaxy A14
Samsung Galaxy A14
Samsung Galaxy A14
Samsung Galaxy A14
Smartwatch FitPro
Samsung Galaxy A14
Smartwatch FitPro

products 15 ×

/*Count the total number of orders.*/

select count(Quantity) from Orders;

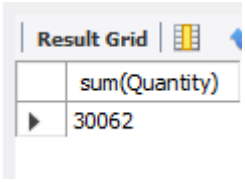


Result Grid

count(Quantity)
10000

/*Find the total quantity ordered across all orders.*/

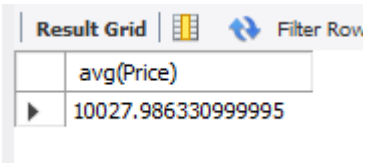
select sum(Quantity) from Orders;



	sum(Quantity)
▶	30062

/*Find the average price of all products.*/

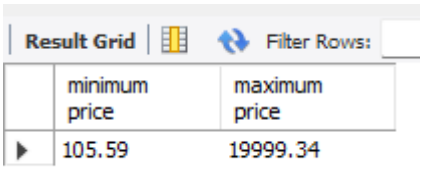
select avg(Price) from Products;



	avg(Price)
▶	10027.986330999995

/*Find the minimum and maximum product price.*/

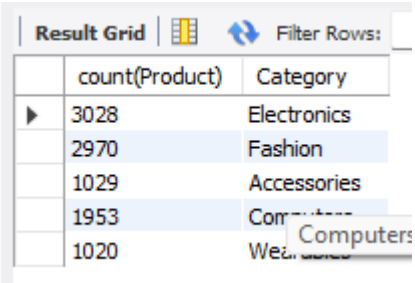
select min(Price) as 'minimum price', max(Price) as 'maximum price' from products;



	minimum price	maximum price
▶	105.59	19999.34

/*Count how many products exist in each category.*/

select count(Product), Category from products group by Category;



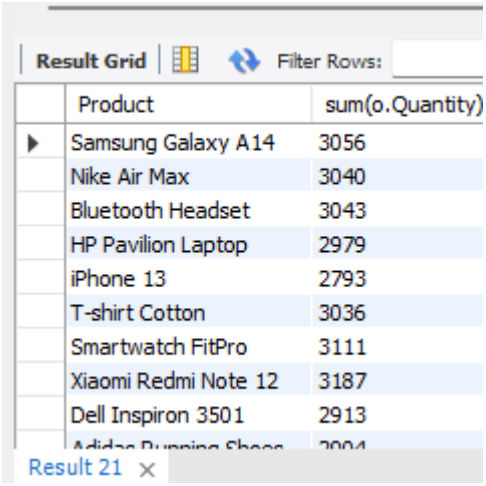
	count(Product)	Category
▶	3028	Electronics
	2970	Fashion
	1029	Accessories
	1953	Com...
	1020	Wea...

Computers

/*Find total quantity ordered for each product.*/

select ProductId, sum(Quantity) from orders group by ProductId;

select p.Product, sum(o.Quantity) from products p join orders o on o.ProductId = p.ProductId group by p.Product;



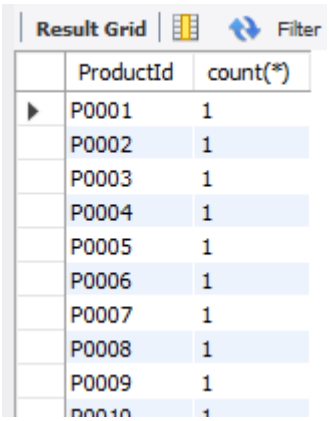
Result Grid | Filter Rows:

Product	sum(o.Quantity)
Samsung Galaxy A14	3056
Nike Air Max	3040
Bluetooth Headset	3043
HP Pavilion Laptop	2979
iPhone 13	2793
T-shirt Cotton	3036
Smartwatch FitPro	3111
Xiaomi Redmi Note 12	3187
Dell Inspiron 3501	2913
Adidas Running Shoes	2004

Result 21

/*Find total number of orders per product.*/

select ProductId, count(*) from orders group by ProductId;

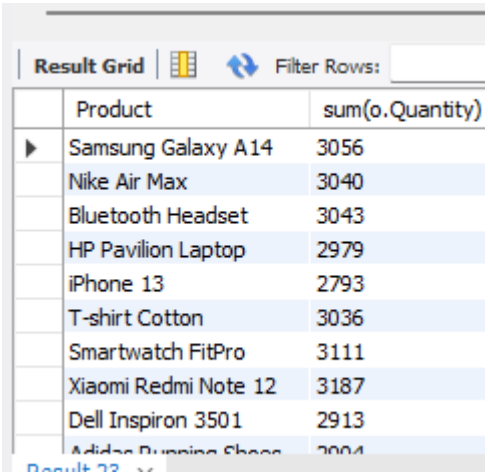


Result Grid | Filter

ProductId	count(*)
P0001	1
P0002	1
P0003	1
P0004	1
P0005	1
P0006	1
P0007	1
P0008	1
P0009	1
P0010	1

/*Display products that have been ordered more than 5 times.*/

select p.Product, sum(o.Quantity) from products p join orders o on o.ProductId = p.ProductId group by p.Product having sum(o.Quantity)>5;



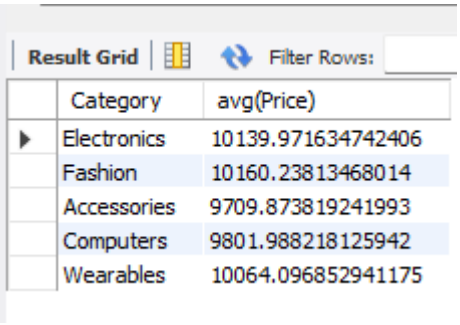
Result Grid | Filter Rows:

Product	sum(o.Quantity)
Samsung Galaxy A14	3056
Nike Air Max	3040
Bluetooth Headset	3043
HP Pavilion Laptop	2979
iPhone 13	2793
T-shirt Cotton	3036
Smartwatch FitPro	3111
Xiaomi Redmi Note 12	3187
Dell Inspiron 3501	2913
Adidas Running Shoes	2004

Result 23

/*Find categories where the average product price is greater than 1000.*/

select Category, avg(Price) from products group by Category having avg(Price)> 1000;

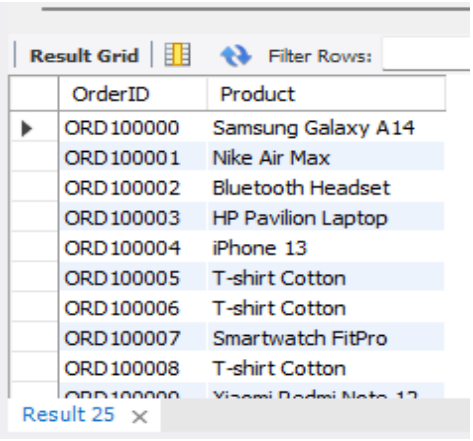


Result Grid | Filter Rows:

Category	avg(Price)
Electronics	10139.971634742406
Fashion	10160.23813468014
Accessories	9709.873819241993
Computers	9801.988218125942
Wearables	10064.096852941175

/*Display order details along with product name.*/

select o.OrderID, p.Product from orders o inner join products p on o.ProductId = p.productId;



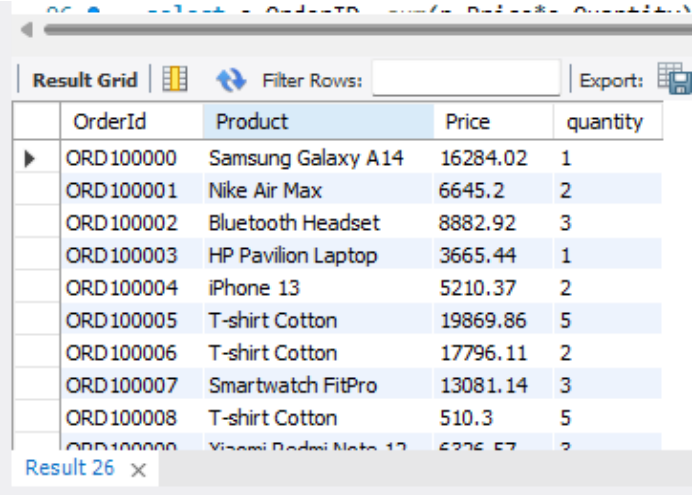
Result Grid | Filter Rows:

OrderID	Product
ORD100000	Samsung Galaxy A14
ORD100001	Nike Air Max
ORD100002	Bluetooth Headset
ORD100003	HP Pavilion Laptop
ORD100004	iPhone 13
ORD100005	T-shirt Cotton
ORD100006	T-shirt Cotton
ORD100007	Smartwatch FitPro
ORD100008	T-shirt Cotton

Result 25

/*Show order ID, product name, price, and quantity.*/

select o.OrderId, p.Product, p.Price, O.quantity from orders o inner join products p on o.ProductId = p.ProductId;



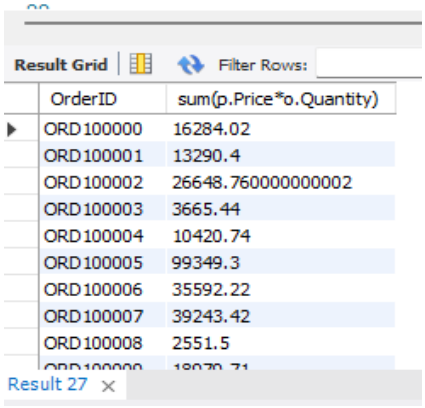
Result Grid | Filter Rows: | Export:

OrderId	Product	Price	quantity
ORD100000	Samsung Galaxy A14	16284.02	1
ORD100001	Nike Air Max	6645.2	2
ORD100002	Bluetooth Headset	8882.92	3
ORD100003	HP Pavilion Laptop	3665.44	1
ORD100004	iPhone 13	5210.37	2
ORD100005	T-shirt Cotton	19869.86	5
ORD100006	T-shirt Cotton	17796.11	2
ORD100007	Smartwatch FitPro	13081.14	3
ORD100008	T-shirt Cotton	510.3	5

Result 26

/*Find total sales value for each order (price × quantity).*/

select o.OrderID, sum(p.Price*o.Quantity) from orders o join products p on o.ProductId = p.ProductId group by o.OrderID;



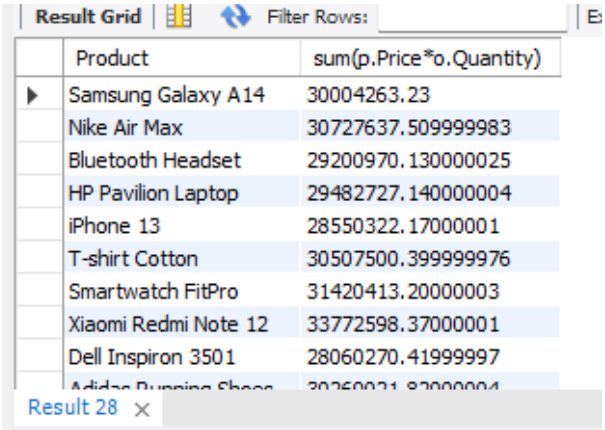
Result Grid | Filter Rows:

OrderID	sum(p.Price*o.Quantity)
ORD100000	16284.02
ORD100001	13290.4
ORD100002	26648.760000000002
ORD100003	3665.44
ORD100004	10420.74
ORD100005	99349.3
ORD100006	35592.22
ORD100007	39243.42
ORD100008	2551.5

Result 27

/*Find total revenue generated by each product.*/

select p.Product, sum(p.Price*o.Quantity) from orders o join products p on o.ProductId= p.ProductId group by p.Product;



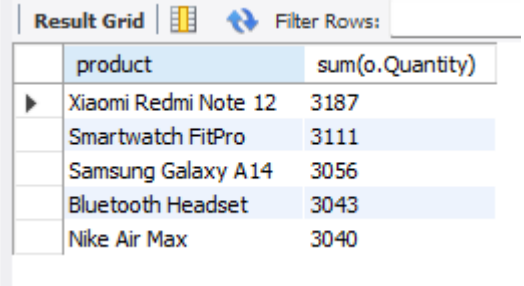
Result Grid | Filter Rows:

Product	sum(p.Price*o.Quantity)
Samsung Galaxy A14	30004263.23
Nike Air Max	30727637.509999983
Bluetooth Headset	29200970.130000025
HP Pavilion Laptop	29482727.140000004
iPhone 13	28550322.17000001
T-shirt Cotton	30507500.399999976
Smartwatch FitPro	31420413.20000003
Xiaomi Redmi Note 12	33772598.37000001
Dell Inspiron 3501	28060270.41999997

Result 28

/*Find the top 5 best-selling products based on total quantity sold.*/

select p.product, sum(o.Quantity) from orders o join products p on o.ProductId = p.ProductId group by p.Product order by sum(o.Quantity) desc limit 5;

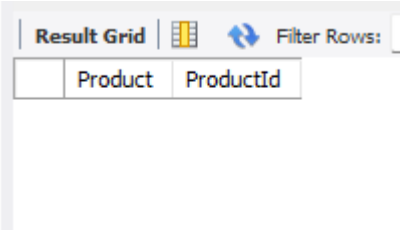


Result Grid | Filter Rows:

product	sum(o.Quantity)
Xiaomi Redmi Note 12	3187
Smartwatch FitPro	3111
Samsung Galaxy A14	3056
Bluetooth Headset	3043
Nike Air Max	3040

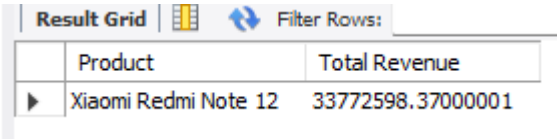
/*Find products that have never been ordered.*/

select p.Product, p.ProductId from products p left join orders o on o.ProductId = p.ProductId where o.ProductId is null;



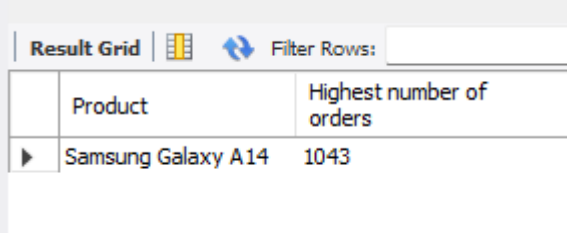
/*Find the product that generated the highest revenue.*/

select p.Product, sum(p.Price*o.Quantity) as 'Total Revenue' from products p join orders o on o.ProductId = p.ProductId group by p.Product order by sum(p.price*o.quantity) desc limit 1;



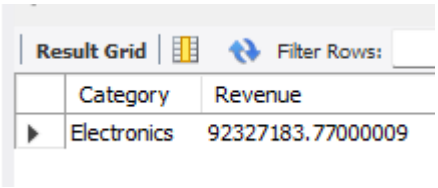
/*Find the product that has the highest number of orders.*/

select p.Product, count(o.OrderID) as 'Highest number of orders' from products p join orders o on o.ProductId = p.ProductId group by p.Product order by count(o.OrderID) desc limit 1;



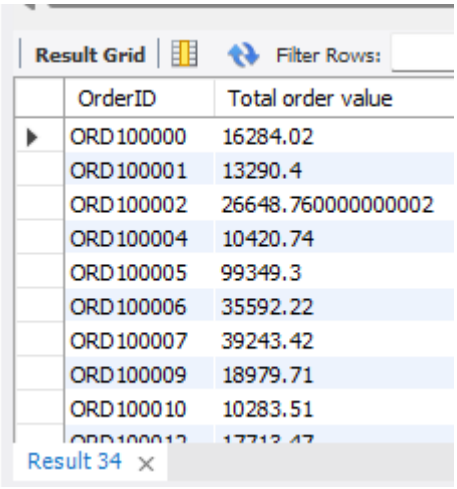
/*Find the category that generated the most revenue.*/

select p.Category, sum(p.Price* o.Quantity) as 'Revenue' from products p inner join orders o on o.ProductId = p.ProductId group by p.Category order by sum(p.Price*o.Quantity) desc limit 1;



/*Find orders where the total order value is greater than 5000.*/

```
select o.OrderID, sum(p.Price*o.Quantity) as 'Total order value' from products
p join orders o on o.ProductID = p.ProductId group by o.OrderID having
sum(p.Price*o.Quantity) > 5000;
```



Result Grid | Filter Rows:

OrderID	Total order value
ORD100000	16284.02
ORD100001	13290.4
ORD100002	26648.760000000002
ORD100004	10420.74
ORD100005	99349.3
ORD100006	35592.22
ORD100007	39243.42
ORD100009	18979.71
ORD100010	10283.51

Result 34