1. what are the products category?

```
Select distinct(Productcategory) as ProductsCategory
From product_t;
```

ProductsCategory
Road
Mtn.
Hybrid
Leisure
Children

2. Which category has the highst quantity in Inventory?

```
Select productcategory, count(quantityonhand) as Quantity
from product_t
group by productcategory
order by quantity desc
limit 1;
```

productcategory	Quantity
▶ Road	6

3. Which product is the most expensive one?

```
select productname, sellingprice
from product_t
order by sellingprice desc
limit 1;
```

productname	sellingprice
▶ Jetty Breaker	649.95

4. Which products are more expensive than average selling price of all products.

```
select productNumber, productname
from product_t
where SellingPrice > (
select AVG(SellingPrice)
from Product_t);
```

productNum...	productname
▶ 2	Elegant 210
3	Runroad 1000
4	Eagle 3
5	Eagle 2
6	Eagle 1
9	Tea for Two
18	Runroad 4000
19	Runroad 5000
20	Twist & Shout
23	Bluff Breaker
24	Jetty Breaker

5. How many products in children's category are more expensive than the average selling price of all the products in children's category?

```
select COUNT(ProductNumber)
from Product_T
where SellingPrice >
( select AVG(SellingPrice)
from Product_T
where ProductCategory = 'Children')
and ProductCategory = 'Children';
```

COUNT(ProductNumb...
▶ 2

6. How many products in road's category are more expensive than the average selling price of all the products in children's category?

```
select count(ProductNumber)
from Product_T
where SellingPrice > (
select AVG(SellingPrice)
from Product_T
where ProductCategory = 'Children')
and ProductCategory = 'Road';
```

➔ 6

7. Extract report on all products, their suppliers, and the number of sold products

```
select p.productname, s.companyname, o.Quantity
from product_t p left join supplier_t s
on p.suppliernumber = s.suppliernumber
left join orders_t o
on p.productnumber = o.productID;
```

productname	companyname	Quantity
Classic 109	Bicyclist's Choice	1
Classic 109	Bicyclist's Choice	40
Classic 109	Bicyclist's Choice	40
Elegant 210	Bicyclist's Choice	NULL
Runroad 1000	Run-Up Bikes	50
Runroad 1000	Run-Up Bikes	100
Eagle 3	Bike-One	40
Eagle 3	Bike-One	40
Eagle 2	Bike-One	40
Eagle 1	Bike-One	10
Eagle 1	Bike-One	100
Runblend 2000	Run-Up Bikes	40
Eagle 7	Bike-One	25
Eagle 7	Bike-One	40
Tea for Two	Simpson's Bike…	NULL
Runcool 3000	Run-Up Bikes	NULL
Starlight	Simpson's Bike…	NULL
Supreme 350	Bicyclist's Choice	NULL
Blue Moon	Simpson's Bike…	NULL
Runkidder 100	Run-Up Bikes	40
Red Rider	Simpson's Bike…	NULL
Coolest 100	Bicyclist's Choice	NULL
Green Rider	Simpson's Bike…	40
Runroad 4000	Run-Up Bikes	NULL
Runroad 5000	Run-Up Bikes	20
Runroad 5000	Run-Up Bikes	25
Runroad 5000	Run-Up Bikes	10
Runroad 5000	Run-Up Bikes	30
Runroad 5000	Run-Up Bikes	20
Twist & Shout	Simpson's Bike…	40
Twist & Shout	Simpson's Bike…	40
Breeze	The Bike Path	20
Breeze LE	The Bike Path	NULL
Bluff Breaker	The Bike Path	NULL
Jetty Breaker	The Bike Path	NULL

8. Which product has the highst profit?

```
select productname, round((sellingprice-purchasecost)) as profit
from product_t
order by profit desc
limit 1;
```

productname	profit
▶ Jetty Breaker	194

9. Extract the name of supplier companies and product

```
select s.companyname, p.productname
from product_t p join supplier_t s
on p.suppliernumber=s.suppliernumber;
```

companyname	productname
▶ Bicyclist's Choice	Classic 109
Bicyclist's Choice	Elegant 210
Run-Up Bikes	Runroad 1000
Bike-One	Eagle 3
Bike-One	Eagle 2
Bike-One	Eagle 1
Run-Up Bikes	Runblend 2000
Bike-One	Eagle 7
Simpson's Bike Supply	Tea for Two
Run-Up Bikes	Runcool 3000
Simpson's Bike Supply	Starlight
Bicyclist's Choice	Supreme 350
Simpson's Bike Supply	Blue Moon
Run-Up Bikes	Runkidder 100
Simpson's Bike Supply	Red Rider
Bicyclist's Choice	Coolest 100
Simpson's Bike Supply	Green Rider
Run-Up Bikes	Runroad 4000
Run-Up Bikes	Runroad 5000
Simpson's Bike Supply	Twist & Shout
The Bike Path	Breeze
The Bike Path	Breeze LE
The Bike Path	Bluff Breaker
The Bike Path	Jetty Breaker

10. Make a list of product names and supplier company's name and location. Order the result table by product name in alphabetical order.

```
select p.productname, s.companyname
from product_t p join supplier_t s
on p.SupplierNumber = s.SupplierNumber
order by p.productname asc;
```

productname	companyname
Blue Moon	Simpson's Bike Supply
Bluff Breaker	The Bike Path
Breeze	The Bike Path
Breeze LE	The Bike Path
Classic 109	Bicyclist's Choice
Coolest 100	Bicyclist's Choice
Eagle 1	Bike-One
Eagle 2	Bike-One
Eagle 3	Bike-One
Eagle 7	Bike-One
Elegant 210	Bicyclist's Choice
Green Rider	Simpson's Bike Supply
Jetty Breaker	The Bike Path
Red Rider	Simpson's Bike Supply
Runblend 2000	Run-Up Bikes
Runcool 3000	Run-Up Bikes
Runkidder 100	Run-Up Bikes
Runroad 1000	Run-Up Bikes
Runroad 4000	Run-Up Bikes
Runroad 5000	Run-Up Bikes
Starlight	Simpson's Bike Supply
Supreme 350	Bicyclist's Choice
Tea for Two	Simpson's Bike Supply
Twist & Shout	Simpson's Bike Supply

11. Get the list of categories and product names that are supplied in San Diego and Seattle.

```
select p.productcategory, p.productname, s.city
from product_t p join supplier_t s
on p.suppliernumber =s.suppliernumber
where city = "San diego" or city = "Long Branch"
order by p.productcategory;
```

productcategory	productname	city
Children	Runkidder 100	Long Branch
Hybrid	Runblend 2000	Long Branch
Hybrid	Eagle 7	San Diego
Leisure	Runcool 3000	Long Branch
Mtn.	Eagle 3	San Diego
Mtn.	Eagle 2	San Diego
Mtn.	Eagle 1	San Diego
Road	Runroad 1000	Long Branch
Road	Runroad 4000	Long Branch
Road	Runroad 5000	Long Branch

12. Get a list of product names and supplier company's name, where current inventory is equal to or less than the reorder level.

```
select p.productname, s.companyname, p.QuantityonHand,
p.ReorderLevel
from product_t p join supplier_t s
on p.SupplierNumber = s.SupplierNumber
where p.QuantityonHand=p.reorderlevel;
```

productname	companyname	QuantityonHand	ReorderLevel
Eagle 2	Bike-One	2	2
Runcool 3000	Run-Up Bikes	5	5
Runroad 4000	Run-Up Bikes	5	5
Runroad 5000	Run-Up Bikes	5	5
Bluff Breaker	The Bike Path	3	3

13. A manager wants to know which companies supply which products . Order by SupplierNumber.
-- Note: the manager wants to include all companies even if they are not currently supplying any products.

```
select s.suppliernumber, p.productname
from supplier_t s left join product_t p
on s.SupplierNumber = p.SupplierNumber
order by s.suppliernumber asc;
```

suppliernumb...	productname
1	Coolest 100
1	Supreme 350
1	Elegant 210
1	Classic 109
2	Eagle 7
2	Eagle 1
2	Eagle 2
2	Eagle 3
3	Runroad 5000
3	Runroad 4000
3	Runkidder 100
3	Runcool 3000
3	Runblend 2000
3	Runroad 1000
4	Twist & Shout
4	Green Rider
4	Red Rider
4	Blue Moon
4	Starlight
4	Tea for Two
5	Jetty Breaker
5	Bluff Breaker
5	Breeze LE
5	Breeze
6	NULL

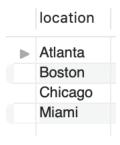## 14. How many distinct products each supplier have supplied?

```
select s.CompanyName, count(distinct p.productnumber)
from supplier_t s left join product_t p
on s.SupplierNumber = p.SupplierNumber
group by s.companyname;
```

CompanyName	count(distinct p.productnum...
Best Bike	0
Bicyclist's Choice	4
Bike-One	4
Run-Up Bikes	6
Simpson's Bike Supply	6
The Bike Path	4

New Datasets: Employees $ Office

15. What are the distinct locations that are mutual in Employees and Office tables?

```
select distinct(o.location)
from employees e join office o
on e.Location = o.location
order by o.location;
```

location
Atlanta
Boston
Chicago
Miami

16. List the ordered name of locations, the number of employees in each location, and show whether these locations are regional.

```
select o.location, Count(e.employeeID)
from office o left join employees e
on o.location= e.location
where o.regionaloffice = "yes"
group by o.location
order by o.location;
```

location	Count(e.employeeI...
▶ Boston	4
Miami	2
Seattle	0