```
SQL> start query1
SQL> select pid,name from products where discnt_rate > .1 and (qoh-10) >= (qoh_threshold)
  2  /

PID  NAME
---- ---------------
p003 camera
p007 tablet

SQL> start query2
SQL> select name,telephone# from customers where to_char(last_visit_date,'MM') >9 and
to_char(last_visit_date,'MM') <11 and telephone# like '666%'
  2  /

NAME            TELEPHONE#
--------------- ------------
Kathy           666-555-4567
Joe             666-555-5746

SQL> start query3
SQL> select distinct a.name,a.telephone# from  customers a,purchases b where a.cid=b.cid and
b.total_price>=100 and to_char(ptime,'MM')>9 and to_char(ptime,'MM')<11
  2  /

NAME            TELEPHONE#
--------------- ------------
Kathy           666-555-4567
Mike            999-555-5674
Joe             666-555-5746

SQL> start query4
SQL> select distinct a.pid,a.name from products a,purchases b where ((a.original_price)*(1-discnt_rate))<10 and
a.pid=b.pid and (to_char(b.ptime,'MM') > 7 and to_char(b.ptime,'MM')<10)
  2  /

PID  NAME
---- ---------------
p004 pencil
p005 chair

SQL> start query5
SQL> select * from purchases where cid in (select cid from customers where name like 'K%') and pid in (select
pid from products where original_price <15) and eid in (select eid from employees where telephone# like '888%')
  2  /

    PUR# EID PID  CID        QTY PTIME     TOTAL_PRICE
---------- --- ---- ---- ---------- --------- -----------
   100009 e03 p001 c007         1 12-OCT-17        8.99

SQL> column name heading "product name" format a12;
SQL> column ptime format A36;
SQL> column pur# format 999999;
```

```
SQL> start query6
SQL> select pur#,a.name,to_char(ptime,'MONTH DD,YYYY day HH:MI:SS')
ptime,total_price,((a.original_price*b.qty)-b.total_price) as saving from purchases b,products a where a.pid=b.pid
  2  /

  PUR# product name PTIME                          TOTAL_PRICE    SAVING
------- ------------- -------------------------------------- ----------- ----------
 100009 stapler      OCTOBER   12,2017 thursday  02:44:23        8.99        1
 100001 TV           AUGUST    12,2017 saturday  10:34:30     211.65     37.35
 100010 TV           SEPTEMBER 19,2017 tuesday   05:32:37     211.65     37.35
 100002 camera        SEPTEMBER 20,2017 wednesday 11:23:36      118.4      29.6
 100015 pencil        SEPTEMBER 20,2017 wednesday 03:56:38        2       -.02
 100003 pencil       OCTOBER   08,2017 sunday    09:30:50      4.95        0
 100011 pencil       OCTOBER   16,2017 monday    04:54:40       9.9        0
 100004 chair        AUGUST    23,2017 wednesday 04:23:35      18.17      7.79
 100008 lamp          AUGUST    16,2017 wednesday 12:22:15      17.96      1.99
 100007 lamp          SEPTEMBER 10,2017 sunday    05:12:20      35.91      3.99
 100013 lamp         AUGUST    30,2017 wednesday 10:38:25      35.91      3.99

  PUR# product name PTIME                          TOTAL_PRICE    SAVING
------- ------------- -------------------------------------- ----------- ----------
 100005 tablet       OCTOBER   15,2017 sunday    01:38:55      119.2      29.8
 100012 computer     SEPTEMBER 18,2017 monday    03:56:38      698.6     299.4
 100006 computer     OCTOBER   12,2017 thursday  03:22:10      349.3     149.7
 100014 powerbank    OCTOBER   14,2017 saturday  10:54:06     134.84     15.01

15 rows selected.

SQL> column name clear
SQL> column ptime clear
SQL> column pur# clear
SQL> start query7
SQL> select distinct eid from employees a,customers b where substr(a.telephone#,1,3)=substr(b.telephone#,1,3)
order by eid
  2  /

EID
---
e01
e02
e03
e04

SQL> start query8
SQL> select temp.cid,name from (select cid,count(cid) freq from purchases group by cid)temp,customers where
temp.freq>1
  2  and temp.cid=customers.cid
  3  and temp.cid not in (select distinct a.cid from purchases a,products b, purchases c
  4  where a.pid=b.pid and ((b.original_price)*(1-b.discnt_rate))>100 and a.ptime>c.ptime and
  5  a.pid=c.pid)
  6  /
```

```
CID  NAME
---- --------------
c003 Chris
c005 Mike

SQL> start query9_1
SQL> select name from employees where eid not in (select eid from purchases a,products b where a.pid=b.pid
and b.original_price>200)
  2  /

NAME
--------------
Mike

SQL> start query9_2
SQL> select name from employees s where not exists (select eid from purchases a,products b where eid=s.eid
and a.pid=b.pid and b.original_price>200)
  2  /

NAME
--------------
Mike

SQL> start query10
SQL> select name,cid from customers s where not exists
  2  ( select * from products p where pid in (select pid from purchases where cid='c005')
  3  and not exists
  4  (select  * from purchases where s.cid not like 'c005' and cid=s.cid and pid=p.pid))
  5  /

NAME            CID
-------------- ----
Chris           c003

SQL> start query11
SQL> select distinct
  2  s.cid from customers s,purchases w where  not exists (select * from products pp where pid in( select p.pid
from products p,purchases q where p.pid=q.pid and p.original_price>200) and not exists (select * from purchases
where pid=pp.pid and cid=s.cid
  3  ))
  4  and s.cid=w.cid and to_char(w.ptime,'MM')>9 and to_char(w.ptime,'MM')<11
  5  /

CID
----
c001

SQL> start query12
SQL> select eid,name from employees x where not exists
  2  ( select * from customers c where cid in
  3  (
  4  select d.cid from customers d,purchases p,products q where p.cid=d.cid and p.pid=q.pid and
```

(q.name='camera' or q.name='chair')
```
  5  )
  6  and not exists
  7  ( select * from purchases where cid=c.cid and eid=x.eid)
  8  )
  9  /
```

EID NAME
--- ---------------
e01 David
e03 Susan

SQL> start query13
SQL> select customers.name from customers where customers.cid in(select purchases.cid from purchases where purchases.total_price in (select Max(purchases.total_price) from purchases))
```
  2  /
```

NAME

Chris

SQL> column discount heading "discount amount";
SQL> start query14
SQL> select pid,name,temp.discount from
```
  2  (select pid,((original_price)-(original_price*discnt_rate))as discount,name from products)temp
  3  Where
  4  temp.discount in (select max((original_price)-(original_price*discnt_rate)) from products)
  5  /
```

PID NAME   discount amount
---- --------------- ---------------
p008 computer   349.3

SQL> column discount clear
SQL> column month heading "Month"
SQL> column total heading "Total Sale";
SQL> start query15
SQL> select temp.month,sum(temp.sale) as total from
```
  2  (select to_char(ptime,'YYYY/MM')as month,total_price as sale from purchases)temp
  3  group by temp.month
  4  order by temp.month
  5  /
```

Month   Total Sale
------- ----------
2017/08   283.69
2017/09   1066.56
2017/10   627.18

SQL> column month clear
SQL> colmn total clear
SP2-0734: unknown command beginning "colmn tota..." - rest of line ignored.

```
SQL> column total clear
SQL> column total heading "Total quantity Sold"
SQL> start query16
SQL> select temp2.pid,temp2.total,name from
  2  (
  3  select pid,sum(temp.times) as total from (select pid,qty as times from purchases)temp group by pid
  4  )temp2,products
  5  where temp2.total in
  6  (select max(sum(temp.times)) from (select pid,qty as times from purchases)temp group by pid)
  7  and temp2.pid=products.pid
  8  /

PID  Total quantity Sold NAME
---- -------------------- ---------------
p004                17 pencil

SQL> start query17
SQL> select temp.pur#,temp.savings from
  2  (select pur#, (a.original_price*b.qty - b.total_price) as savings from products a,purchases b where
a.pid=b.pid)temp
  3  where temp.savings in
  4  (select max(a.original_price*b.qty - b.total_price) from products a,purchases b where a.pid=b.pid)
  5  /

    PUR#    SAVINGS
---------- ----------
   100012     299.4

SQL> start query18_1
SQL> select pur#,total_price from purchases where total_price >= (select max(total_price) from purchases where
cid='c006')
  2  /

     PUR# TOTAL_PRICE
---------- -----------
   100001    211.65
   100006     349.3
   100010    211.65
   100012     698.6

SQL> start query18_2
SQL> select pur#,total_price from purchases where total_price >= ( select a.total_price from purchases
a,purchases b where a.total_price>b.total_price and a.cid='c006' and b.cid='c006')
  2  /

     PUR# TOTAL_PRICE
---------- -----------
   100001    211.65
   100006     349.3
   100010    211.65
   100012     698.6
```

```
SQL> column price heading "total amount spent"
SQL> start query19
SQL> select temp.cid,name,temp.price from
  2 (select cid,sum(total_price) as price from  purchases group by cid order by price desc)temp,customers
  3 Where rownum<4 and customers.cid=temp.cid
  4 /

CID  NAME          total amount spent
---- --------------- ------------------
c003 Chris              754.68
c001 Kathy              679.35
c006 Connie             221.55

SQL> column num heading "number of customers"
SQL> start query20
SQL> select x.pid,x.name,nvl(y.count2,0)num from
  2 ( (select pid,name from products) x left join
  3 (select temp.pid as pid, count(*) as count2  from ( select distinct a.pid as pid,b.cid as cid from products
a,purchases b where
  4 a.pid=b.pid and to_char(b.ptime,'MM')='10')temp group by temp.pid order by temp.pid)y
  5 on x.pid=y.pid)
  6 order by x.pid
  7 /

PID  NAME          number of customers
---- --------------- -------------------
p001 stapler             1
p002 TV                  0
p003 camera               0
p004 pencil              2
p005 chair               0
p006 lamp                 0
p007 tablet              1
p008 computer             1
p009 powerbank             1
p010 stapler2             0

10 rows selected.

SQL> spool off
```