Q1

The HR department needs a report to display the employee number, last name, salary, and salary increased by 15.5% (expressed as a whole number) for each employee. Label the column New Salary

Solution:

```
SQL> select employee_id,last_name,salary,
  2  ROUND(salary *0.155,0) "New Salary"
  3  from employees;

EMPLOYEE_ID LAST_NAME                     SALARY New Salary
----------- ------------------------- ---------- ----------
        100 King                           24000       3720
        101 Kochhar                        17000       2635
        102 De Haan                        17000       2635
        103 Hunold                          9000       1395
        104 Ernst                           6000        930
        105 Austin                          4800        744
        106 Pataballa                       4800        744
        107 Lorentz                         4200        651
        108 Greenberg                      12008       1861
        109 Faviet                          9000       1395
        110 Chen                            8200       1271

EMPLOYEE_ID LAST_NAME                     SALARY New Salary
----------- ------------------------- ---------- ----------
        111 Sciarra                         7700       1194
        112 Urman                           7800       1209
        113 Popp                            6900       1070
        114 Raphaely                       11000       1705
        115 Khoo                            3100        481
        116 Baida                           2900        450
        117 Tobias                          2800        434
        118 Himuro                          2600        403
        119 Colmenares                      2500        388
        120 Weiss                           8000       1240
        121 Fripp                           8200       1271

EMPLOYEE_ID LAST_NAME                     SALARY New Salary
----------- ------------------------- ---------- ----------
        122 Kaufling                        7900       1225
        123 Vollman                         6500       1008
        124 Mourgos                         5800        899
        125 Nayer                           3200        496
        126 Mikkilineni                     2700        419
        127 Landry                          2400        372
        128 Markle                          2200        341
        129 Bissot                          3300        512
        130 Atkinson                        2800        434
        131 Marlow                          2500        388
        132 Olson                           2100        326
```

Q2:

The HR department wants to find the duration of employment for each employee. For each employee, display the last name and calculate the number of months between today and the date on which the employee was hired. Label the column as MONTHS_WORKED. Order your results by the number of months employed. Round the number of months up to the closest whole number.

Solution:

```
SQL> Select last_name, ROUND(Months_between(sysdate, hire_date))months_worked
  2  from employees
  3  order by months_worked;

LAST_NAME                 MONTHS_WORKED
------------------------- -------------
Banda                               155
Kumar                               155
Ande                                156
Markle                              157
Lee                                 157
Zlotkey                             158
Geoni                               158
Marvins                             158
Philtanker                          158
Johnson                             159
Perkins                             159

LAST_NAME                 MONTHS_WORKED
------------------------- -------------
Grant                               159
Tuvault                             160
Mourgos                             160
Popp                                160
Gee                                 160
Cambrault                           162
Colmenares                          164
Sullivan                            165
OConnell                            165
Ernst                               166
Grant                               166

LAST_NAME                 MONTHS_WORKED
------------------------- -------------
Greene                              168
Olson                               168
Bates                               168
Jones                               168
Smith                               169
Lorentz                             170
Cabrio                              170
Landry                              171
Cambrault                           172
Sewall                              173
Himuro                              173

LAST_NAME                 MONTHS_WORKED
------------------------- -------------
Mikkilineni                         174
Rogers                              175
Gates                               177
Dellinger                           177
Vargas                              177
McCain                              177
Feeney                              178
Walsh                               179
Livingston                          179
Olsen                               180
Taylor                              180

LAST_NAME                 MONTHS_WORKED
------------------------- -------------
```

Q3:

Create a query to display the last name and the number of weeks employed for all employees in department 90. Label the number of weeks column as TENURE. Truncate the number of weeks value to 0 decimal places. Show the records in descending order of the employee‘s tenure

Solution:

```
SQL> select last_name, TRUNC((SYSDATE-hire_date)/7,-1) AS TENURE
  2  from employees
  3  where department_id=90
  4  ORDER BY hire_date DESC;

LAST_NAME                    TENURE
------------------------- ----------
Kochhar                         810
King                            920
De Haan                        1050

SQL>
```

Q4:

Using the DECODE function, write a query that displays the grade of all employees based on the value of the column JOB_ID, using the following data: Job Grade AD_PRES A ST_MAN B IT_PROG C SA_REP D ST_CLERK E None of the above 0

Solution:

```
SQL> select job_id,
  2  decode(job_id,
  3  'ST_CLERK','E',
  4  'SA_REP','D',
  5  'ST_MAN','B',
  6  'IT_PROG','C',
  7  'AD_PRES','A',
  8  '0') GRADE
  9  from employees;

JOB_ID     G
---------- -
AD_PRES    A
AD_VP      0
AD_VP      0
IT_PROG    C
IT_PROG    C
IT_PROG    C
IT_PROG    C
IT_PROG    C
FI_MGR     0
FI_ACCOUNT 0
FI_ACCOUNT 0

JOB_ID     G
---------- -
FI_ACCOUNT 0
FI_ACCOUNT 0
FI_ACCOUNT 0
PU_MAN     0
PU_CLERK   0
PU_CLERK   0
PU_CLERK   0
PU_CLERK   0
PU_CLERK   0
ST_MAN     B
ST_MAN     B

JOB_ID     G
---------- -
ST_MAN     B
ST_MAN     B
ST_MAN     B
ST_CLERK   E
ST_CLERK   E
ST_CLERK   E
```

Q5:

Write a query to display the number of people with the same job

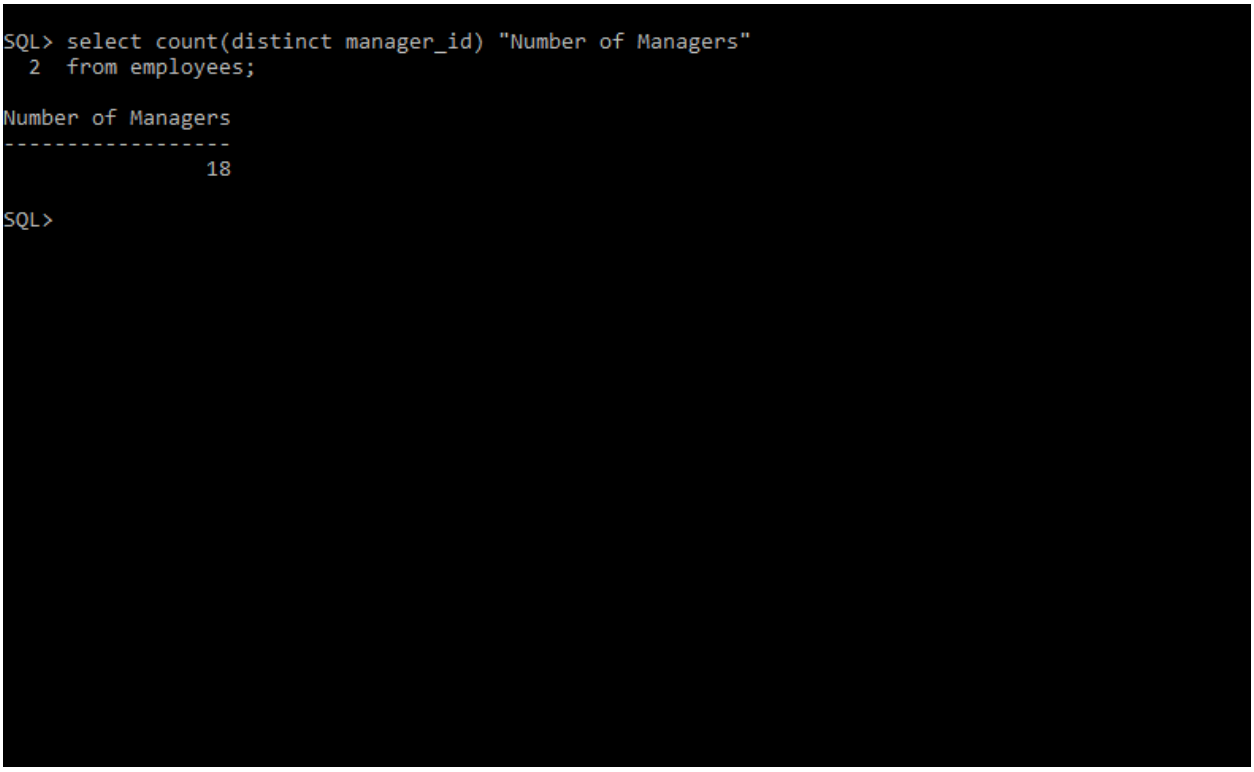
Solution:

```
SQL> select job_id, count(*)
  2  from employees
  3  group by job_id;

JOB_ID       COUNT(*)
---------- ----------
IT_PROG             5
AC_MGR              1
AC_ACCOUNT          1
ST_MAN              5
PU_MAN              1
AD_ASST             1
AD_VP               2
SH_CLERK           20
FI_ACCOUNT          5
FI_MGR              1
PU_CLERK            5

JOB_ID       COUNT(*)
---------- ----------
SA_MAN              5
MK_MAN              1
PR_REP              1
AD_PRES             1
SA_REP             30
MK_REP              1
ST_CLERK           20
HR_REP              1

19 rows selected.

SQL>
```

Q6:

Determine the number of managers without listing them. Label the column as Number of Managers.
Hint: Use the MANAGER_ID column to determine the number of managers

Solution:



Q7:

Create a report to display the manager number and the salary of the lowest-paid employee for that manager. Exclude anyone whose manager is not known. Exclude any groups where the minimum salary is $6,000 or less. Sort the output in descending order of salary.

Solution:

```
SQL> select manager_id, min(salary)
  2  from employees
  3  where manager_id is not NULL
  4  group by manager_id
  5  having min(salary) >6000
  6  order by min(salary) desc;

MANAGER_ID MIN(SALARY)
---------- -----------
       102        9000
       205        8300
       145        7000
       146        7000
       108        6900
       147        6200
       149        6200
       148        6100

8 rows selected.

SQL>
```

Q8:

Create a query to display the total number of employees and, of that total, the number of employees hired in 1995, 1996, 1997, and 1998. Create appropriate column headings.

Solution:

```
SQL> select  count(*) total,
  2  sum(DECODE(TO_CHAR(hire_date, 'YYYY'),1995,1,0))"1995",
  3  sum(DECODE(TO_CHAR(hire_date, 'YYYY'),1996,1,0))"1996",
  4  sum(DECODE(TO_CHAR(hire_date, 'YYYY'),1997,1,0))"1997",
  5  sum(DECODE(TO_CHAR(hire_date, 'YYYY'),1998,1,0))"1998"
  6  from employees;

     TOTAL       1995       1996       1997       1998
---------- ---------- ---------- ---------- ----------
       107          0          0          0          0

SQL>
```