Question 1:

**pname ->price**

select pname, count(distinct price)

from public."MySales"

group by pname

**month->discount**

select month, count(distinct discount)

from public."MySales"

group by month

**month,price->discount**

select month,price, count(distinct discount)

from public."MySales"

group by month, price

**month,pname->discount**

select month,pname, count(distinct discount)

from public."MySales"

group by month, pname

**month,pname->price**

select month,pname, count(distinct price)

from public."MySales"

group by month, pname

**pname,discount->price**

select pname,discount, count(distinct price)

from public."MySales"

group by pname, discount

**pname,price,month->discount**

select pname,price,month, count(distinct discount)

from public."MySales"

group by pname, price, month

**pname,month,discount->price**

select pname,month,discount, count(distinct price)

from public."MySales"

group by pname, month, discount

**pname, month->discount, price**

select pname, month, count(distinct discount), count(distinct price)

from public."MySales"

group by pname, month

CREATE TABLE a(

pname text NOT NULL,

price numeric,

PRIMARY KEY (pname))

CREATE TABLE b(

month text NOT NULL,

discount numeric,

PRIMARY KEY (month))

CREATE TABLE c(

pname text NOT NULL,

month text NOT NULL,

PRIMARY KEY (pname, month),

FOREIGN KEY (pname) REFERENCES a(pname),

FOREIGN KEY (month) REFERENCES b(month))

INSERT INTO a

SELECT distinct pname, price

FROM public."MySales"

36 tuples in a

INSERT INTO b

SELECT distinct month, discount

FROM public."MySales"

12 tuples in b

INSERT INTO c

SELECT distinct pname, month

FROM public."MySales"

426 tuples in c

Question 2:

1a. Minimal key = {A,D}

b. Table1 = (A,B,C)

Table2 = (D,A,F)

Table3 = (D,E)

c. Table1 and Table2 maintain the functional dependencies

2a. Minimal Key = {ABC,D}

b. Table1 = (D,A)

Table2 = (B,C,D)

c. Table1 maintains the functional dependency D->A but the FD ABC->D is lost