2.12

a . ∏ person name (σ company name = “First Bank Corporation” (works))

b . ∏ person name,city (employee ∞

(s company name = “First Bank Corporation” (works)))

c . ∏ person name, street, city

(σ (company name = “First Bank Corporation” ∧ salary > 10000)

(works ∞employee))

3.21

a .

select name

from member m, book b, borrowed l

where m.memb no = l.memb no

and l.isbn = b.isbn and

b.publisher = ’McGrawHill’

b .

select name

from member natural join borrowed

group by name

having not exists

((select isbn

from borrowed natural join book

where book.publisher =’McGraw-Hill’ )

except isbn )

c .

select name,publisher

from member,

(select memb no,publisher

from book natural join borrowed

group by publisher

having count(memb no)>5 ) as T

where member.memb no in T.memb no

d .

with memcount as

(select count(\*)

from member)

select count(\*)/memcount

from borrowed

4.14

create view tot\_credits(year, num\_credits) as select year,sum(tot\_cred) from takes natural join students group by year