

1. Given $F = \{a \rightarrow b, \quad b \rightarrow c \quad c \rightarrow \{de\}\}$. What is the closure of b

$\{b, c, d, e\}$

2. Given $R(a,b,c,d,e,f)$. Given the following functional dependency:

$F = \{ ab \rightarrow cdef, \quad c \rightarrow abdef \}$.

Identify the L M R, candidate keys, prime/non prime and normal form using the table below

L	M	R	Candidate Keys	prime	Non prime	Normal Form
	C	D	ab	a	d	BCNF form
	A	E	c	b	e	
	B	F		c	f	

3. Given $R(a,b,c,d,e,f)$. Given the following functional dependency:

$F = \{ ab \rightarrow cdef \quad c \rightarrow abdef \quad e \rightarrow a \}$.

Identify the L M R, candidate keys, prime/non prime and normal form using the table below

L	M	R	Candidate Keys	prime	Non prime	Normal Form
	C	D	c	c	d	2 nd form
	E	F	be	b	f	
	A		ab	e		
	B			a		

4. Given $R(a,b,c,d,e,f,g)$. Given the following functional dependency:

$F = \{ ab \rightarrow \{cdeg\}, \quad c \rightarrow abdef, \quad d \rightarrow b \}$

Identify the L M R, candidate keys, prime/non prime and normal form using the table below

L	M	R	Candidate Keys	prime	Non prime	Normal Form
	a	e	c	c	e	2 nd form
	b	f	ab	a	f	
	c	g	ad	b	g	
	d			d		