รหัสนิสิต ..... ชื่อ-สกุล ..... หมู่ ◯ 800 ◯ 870

R1			
ID	Name	Age	Gender
1	Ann	22	Female
2	Mary	20	Female
3	Jane	23	Female
4	John	20	Male
5	Jenny	20	Female

R2		
ID	Height	Member
1	168	Y
2	165	N
1	168	N
4	183	Y
6	153	Y

R3			
ID	Name	Age	Gender
2	Mary	20	Female
6	Nat	20	Female
7	Rob	21	Male

R4
Member
Y
N

1. จงเขียนผลลัพธ์จากการดำเนินการด้วย พีชคณิตเชิงสัมพันธ์ (Relational Algebra)

1.1 S = R1 U R3

R1			
ID	Name	Age	Gender
1	Ann	22	Female
2	Mary	20	Female
3	Jane	23	Female
4	John	20	Male
5	Jenny	20	Female
6	Nat	20	Female
7	Rob	21	Male

1.2 S = R3 × R4

R3 X R4				
ID	Name	Age	Gender	Member
2	Mary	20	Female	Y
6	Nat	20	Female	Y
7	Rob	21	Male	Y
2	Mary	20	Female	N
6	Nat	20	Female	N
7	Rob	21	Male	N

รหัสนิสิต ..... ชื่อ-สกุล ..... หมู่ ◯ 800 ◯ 870

1.3 S = R1 ∩ R3

ID	Name	Age	Gender
2	Mary	20	Female

1.4 S = R1 - R3

ID	Name	Age	Gender
1	Ann	22	Female
3	Jane	23	Female
4	John	20	Male
5	Jenny	20	Female

1.5 S = σ (Gender = Male) (R3)

ID	Name	Age	Gender
7	Rob	21	Male

1.6 S = σ (Gender = Female AND Age > 20) (R1)

ID	Name	Age	Gender
1	Ann	22	Female
3	Jane	23	Female

1.7 S = π (ID, Member) (R2)

R2	
ID	Member
1	Y
2	N
1	N
4	Y
6	Y

1.8 S = R3 ►◄(ID = ID) R2

ID	Name	Age	Gender	Height	Member
2	Mary	20	Female	165	N
6	Nat	20	Female	153	Y

1.9 S = R3 ►◄ left outer (ID = ID) R2

ID	Name	Age	Gender	ID	Height	Member
2	Mary	20	Female	2	165	N
6	Nat	20	Female	6	153	Y
7	Rob	21	Male			

1.10 S = R2 ÷ R4

ID	Height
1	168