Name 1:

Name 2:

Date:

0) Complete the following table

a	b	NOT a	a AND b	a OR c
T	T	F	T	T
T	F	F	F	T
F	⊥	F	⊥	T
F	T	T	F	T
⊥	F	T	F	F
⊥	T	T	⊥	⊥
T	F	⊥	F	⊥
	⊥	⊥	⊥	⊥

1) Compute R ⋈ S:

R

id	desc
32	'apple'
52	'orange'
15	'pear'

S

id	price
15	15.3
32	45.2
20	3.2

id	desc	price
32	'apple'	45.2
15	'pear'	15.3

2) Write a Rel Alg. expression to answer:
List all id's in R and their price.

A = R ⋈ S

we need to add those not in A

$B = \Pi_{id} R - \Pi_{id}(A)$

then union them

$R \bowtie S \; \cup \; (\Pi_{id, NULL}(\Pi_{id} R - \Pi_{id} A))$

we need to add null to make the union "union compatible"