

CDF IDs:

Names:

SQL: Exercises with nulls

1. Suppose we have a table called Runnymede with the following content:

name	age	grade
-----+-----+-----		
diane		8
will		8
cate		1
tom		
micah		1
jamieson		2
(6 rows)		

What is the output of each query below?

- (a) `select min(grade), max(grade), sum(grade), avg(grade), count(grade), count(*)
from Runnymede;`
- (b) `select min(age), max(age), sum(age), avg(age), count(age), count(*)
from Runnymede;`

2. We have tables *R* and *T*. Their contents are shown below.

R		T	
a	b	b	c
---+---		---+---	
1	2	2	5
8	7	2	9
5		1	4
	6		18
(4 rows)		6	88
		(5 rows)	

What is the result of this query:

```
select * from R natural join T;
```

3. Suppose we have this table:

```
create table names(first text, last text, unique (first, last));
```

What will the result of the following be?

- (a) Doing this twice: `insert into names values ('Diane', 'Horton');`
- (b) Doing this twice: `insert into names values (null, 'Liu');`

4. Suppose we have these tables:

```
csc343h-bogdan=> select * from R;
```

a	b
1	2
8	7
5	
	6

(4 rows)

```
csc343h-bogdan=> select * from S;
```

a	b
3	4
8	7
5	
	6

(4 rows)

What will the result of the following be?

- (a) `(SELECT * from R) INTERSECT (SELECT * from S);`
- (b) `(SELECT * from R) EXCEPT (SELECT * from S);`