

-- Domain: Guess the number of jelly beans in a jar.

-- FYI, these are the statements that define the table and populate it:

```
create table Guesses (number int, name text, guess int);
```

```
insert into Guesses values
```

```
(1, 'Cole', 365), (2, 'Avery', 500), (3, 'Sam', 502), (4, 'Madeleine', 390),  
(5, 'Cole', 450), (6, 'Michael', 1000), (7, 'Mackenzie', 700),  
(8, 'Mackenzie', 701);
```

-- Let's see what we have.

```
csc343h-dianeh=> select * from guesses;
```

number	name	guess
1	Cole	365
2	Avery	500
3	Sam	502
4	Madeleine	390
5	Cole	450
6	Michael	1000
7	Mackenzie	700
8	Mackenzie	701

(8 rows)

-- Why doesn't this give you the maximum guess?

```
csc343h-dianeh=> select * from guesses where guess > any (select guess from guesses);
```

number	name	guess
2	Avery	500
3	Sam	502
4	Madeleine	390
5	Cole	450
6	Michael	1000
7	Mackenzie	700
8	Mackenzie	701

(7 rows)

-- "Any" sounds a lot like "every" in this query. But it means "any one or more".

-- Remember that ANY is existentially quantified.

-- I think this query sounds much more like what it actually is when we express it

-- instead with the keyword SOME, which is a synonym for ANY in SQL.

```
csc343h-dianeh=> select * from guesses where guess > some (select guess from guesses);
```

number	name	guess
2	Avery	500
3	Sam	502
4	Madeleine	390
5	Cole	450
6	Michael	1000
7	Mackenzie	700
8	Mackenzie	701

(7 rows)

-- Okay, let's switch to ALL, which is universally quantified.

-- Why doesn't this give you the maximum guess?

```
csc343h-dianeh=> select * from guesses where guess > all (select guess from guesses);
```

number	name	guess
--------	------	-------

(0 rows)

```
-- The maximum value (1000) isn't greater than every value because it's not greater than  
-- itself! To get the max, we must change to >=
```

```
csc343h-diane@=> select * from guesses where guess >= all (select guess from guesses);  
  number |   name   | guess  
-----+-----+-----  
        6 | Michael | 1000  
(1 row)
```