

## SQL Review

Name:

### SQL

1. Circle TRUE or FALSE.

- (a) True    False    SQL is a declarative language that specifies what to produce but not how to compute it.
- (b) True    False    The primary key of a relation is the column or set of columns that determine the values of the remaining column.
- (c) True    False    The schema of a table consists of the data stored in the table.
- (d) True    False    The WHERE and HAVING clause can be used interchangeably as they perform the same operation.

### Writing SQL Queries

Consider the following schema:

```
Clowns(cid int, cname text, booth text)
Balloons(bid int, bshape text, bcolor text)
Catalog(cid int, bid int, cost float)
```

Note: The Catalog table contains prices for Balloons sold by different Clowns standing at certain booths in a fair.

- 2. How may we query for the top 3 most expensive shapes sold by Whompers LeFou, ignoring the possibility that Whompers could be selling the same shape in different colors?
  
  
  
  
  
  
  
  
  
  
- 3. How may we query for the top 3 most expensive shapes sold by Whompers LeFou, taking into consideration the possibility that Whompers could be selling the same shape in different colors by using the highest-priced color of each shape?

4. What is the average cost of a red balloon at booths that offer more than 3 red shapes per clown?  
Note that each clown at the booth does not necessarily have to be selling more than 3 shapes.

5. Consider the following real estate schema:

```
Homes(home_id int, city text, bedrooms int, bathrooms int,  
area int)  
Transactions(home_id int, buyer_id int, seller_id int,  
transaction_date date, sale_price int)  
Buyers(buyer_id int, name text)  
Sellers(seller_id int, name text)
```

Fill in the blanks in the SQL query to find the duplicate-free set of id's of all homes in Berkeley with at least 6 bedrooms and at least 2 bathrooms that were bought by "Bobby Tables."

```
SELECT _____  
FROM _____  
WHERE _____  
_____  
_____  
_____  
_____
```