Quiz 1
This quiz consists of **two** questions.

Yoda's Yogurt is a small frozen yogurt store that sells frozen yogurt. The store uses a database that has a table to keep track of the yogurtthat the store has in stock. The table was created using the following SQL code:

```
create table yogurt_in_stock (
 name varchar(50),
 flavor varchar(10),
 lowfat boolean,
 sugarfree boolean,
 quantity_available decimal(6,3),
 quantity_sold decimal(6,3),
 expiration date
);
```

Assume that there may be multiple varieties of yogurt of each flavor. Assume also that all quantities are recorded in kilograms and that 1 kilogram is equal to 2.2 pounds.

1. Write a query that answers the following question: *What is the total available quantity **in pounds** of lowfat yogurt with "banana" and "lemon" flavors that is not yet past its expiration date?*

A correct answer:

```
select sum(quantity_available) * 2.2
from yogurt_in_stock
where
 lowfat is true
 and (flavor="banana" or flavor="lemon")
 and expiration > current_date();
```

Some variations may be acceptable. (E.g., putting "*2.2" inside the sum.) If you didn't remember about current_date() then comparing against "2011-09-21" would be second-best.

Common problems:

- The parentheses around the two flavor options are very important. You won't get the right result if you skip them.

- The following is incorrect:

    ```
     flavor="banana" or "lemon"
    ```

    because it is equivalent to:

    ```
     (flavor="banana") or "lemon"
    ```

    which really makes no sense. (How this gets interpreted may depend on the specific database.)

2. What are the advantages and disadvantages of using "varchar(10)" as the data type for the flavor field? *Please write your answer on the other side of the sheet.*

Advantages:

- easier to remember than numeric codes for flavors;

- easy to add new flavors, compared to using "enum" or numeric codes;

- **saves space compared to using "char" or a longer "varchar".**

Disadvantages:

- takes more space a shorter varchar, an enum or an integer would;

- **too short for many flavor names (it's just 10 letters, not long enough for common flavors like "cookie dough" or "chocolate mint")**.

Since the number of yogurts is unlikely to be very big (maybe tens, hundreds, maybe thousands, but definitely not millions), space should **not** be a big concern. So, the best thing to do would be to pick a *longer* varchar.

(your answer probably shouldn't go past this point)