Unnesting Aggregates

```
product(pname,price,cid)
company(cid,cname,city)
```

Find the number of companies in each city

```
SELECT DISTINCT X.city, (SELECT count(*)
                FROM company Y
                WHERE X.city=Y.city)
FROM company Y
```
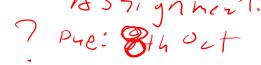
```
SELECT city, count(*)
FROM company
GROUP BY city
```

Note:
No need for DISTINCT
(DISTINCT is same as GROUP BY)

Assignment!
? Due: 8th Oct

Equivalent Queries

Are they?

Grouping vs nested Queries

`purchase(pid,product,quantity,price,cid)`

```
SELECT product, sum(quantity) AS totalSales
FROM purchase
WHERE price > 1
GROUP BY product
```

```
SELECT DISTINCT X.product (SELECT SUM(Y.quantity)
                          FROM purchase Y
                          WHERE X.product=Y.product
                          AND Y.price > 1 AS totalSales


FROM purchase Y
WHERE X.price > 1
```

#2 Ans.

Why twice?