

1. (5 points) **The Powers that Three**

Write a recursive `select` statement to compute the powers of three from $3^0, 3^1, \dots, 3^8$. You should not need all of the lines provided (an ideal solution will only use two or three).

```
with threes(pwr) as (
```

```
-----  
-----  
-----  
-----  
-----
```

```
)  
select pwr from threes;
```

```
1  
3  
9  
27  
81  
243  
729  
2187  
6561
```

2. (5 points) Cats!... the second most popular pets in the US

We can also use SQL to determine the anagrams of a word! Let's try using SQL to find the anagrams of "cats". (Remember that string concatenation in SQL is performed using the || operator.)

```
with given(char, weight) as (  
  select 'c', 1 union  
  select 'a', 10 union  
  select 't', 100 union  
  select 's', 1000  
)  
select -----  
-----  
from -----  
-----  
where -----;
```

```
acst  
acts  
asct  
astc  
atcs  
atsc  
cast  
cats  
csat  
csta  
ctas  
ctsa  
sact  
satc  
scat  
scta  
stac  
stca  
tacs  
tasc  
tcas  
tcsa  
tsac  
tsca
```