


1.

```
SELECT AVG(total_amount_paid) AS "average"
FROM
(SELECT A.customer_id,A.first_name, A.last_name, D.country, C.city, SUM(E.amount)
AS total_amount_paid
FROM customer A
INNER JOIN address B ON A.address_id = B.address_id
INNER JOIN city C ON B.city_id = C.city_id
INNER JOIN country D ON C.country_id = D.country_id
INNER JOIN payment E ON A.customer_id = E.customer_id
WHERE city IN('Aurora',
              'Acua',
              'Citrus Height',
              'Iwaki',
              'Ambattur',
              'Shanwei',
              'So Leopoldo',
              'Teboksary',
              'Tianjin',
              'Cianjur')
GROUP BY A.customer_id, A.first_name, A.last_name, D.country, C.city
ORDER BY total_amount_paid DESC
LIMIT 5) AS total_amount_paid
```

	average numeric	
1	105.5540000000000000	

2.

```
SELECT D.country,
COUNT(DISTINCT A.customer_id) AS all_customer_count,
COUNT(DISTINCT top_five_customers.customer_id) AS top_customers_count
FROM customer A
INNER JOIN address B ON A.address_id = B.address_id
INNER JOIN city C ON B.city_id = C.city_id
INNER JOIN country D ON C.country_id = D.country_id
LEFT JOIN
(SELECT A.customer_id,A.first_name, A.last_name, D.country, C.city, SUM(E.amount)
AS total_amount_paid
FROM customer A
INNER JOIN address B ON A.address_id = B.address_id
INNER JOIN city C ON B.city_id = C.city_id
```

```

INNER JOIN country D ON C.country_id = D.country_id
INNER JOIN payment E ON A.customer_id = E.customer_id
WHERE city IN('Aurora',
              'Acua',
              'Citrus Height',
              'Iwaki',
              'Ambattur',
              'Shanwei',
              'So Leopoldo',
              'Teboksary',
              'Tianjin',
              'Cianjur')
GROUP BY A.customer_id, A.first_name, A.last_name, D.country, C.city
ORDER BY total_amount_paid DESC
LIMIT 5) AS top_five_customers
ON D.country = top_five_customers.country
GROUP BY D.country
ORDER by COUNT(top_five_customers) DESC
LIMIT 5;

```

	country character varying (50) 🔒	all_customer_count bigint 🔒	top_five_customers_count bigint 🔒
1	India	60	1
2	China	53	1
3	United States	36	1
4	Japan	31	1
5	Mexico	30	1

3. I prefer to write small queries and to keep track of information that way. Although the subqueries are useful in finding out the information in one shot, it is easier to use short queries. That may change if SQL becomes more second nature. In this case though, the subquery was already written, so this made it easier to set it all up. I think it would be useful if some of the work has already been done.