1. First SQL Problem

```
/*calculate monthly average expences for each entity*/
WITH EntityAverage AS (
  SELECT
    FORMAT(s.pay_date, 'yyyy-MM') AS pay_month, c.entity_id, AVG(s.amount) AS entity_avg
  FROM
    sales s
  JOIN
    client c ON s.client_id = c.client_id
  GROUP BY
    FORMAT(s.pay_date, 'yyyy-MM'), c.entity_id
),

/*calculate monthly average expences for the company*/
CompanyAverage AS (
  SELECT
    FORMAT(s.pay_date, 'yyyy-MM') AS pay_month, AVG(s.amount) AS company_avg
  FROM
    sales s
  GROUP BY
    FORMAT(s.pay_date, 'yyyy-MM')
)

/* compare the average expences of each entity with the company*/
SELECT
  ea.pay_month, ea.entity_id,
  CASE
    WHEN ea.entity_avg > (SELECT company_avg FROM CompanyAverage WHERE
pay_month = ea.pay_month) THEN 'higher'
    WHEN ea.entity_avg < (SELECT company_avg FROM CompanyAverage WHERE
pay_month = ea.pay_month) THEN 'lower'
    ELSE 'same'
  END AS comparison
FROM
  EntityAverage ea
ORDER BY
  ea.pay_month DESC, ea.entity_id;
```

2. Second Sql Problem

```sql
WITH CollaboratorRank AS (
  /*select collaborator sales rankings in each brand*/
  SELECT
    c.collaborator_id, c.collaborator_name, b.brand_id, b.cars_sold,
    /*calculate the collaborator's rank in ascending order by the number of cars sold.*/
    ROW_NUMBER() OVER (PARTITION BY b.brand_id ORDER BY b.cars_sold ASC) AS rank_asc,
    /*calculate the collaborator's rank in descending order by the number of cars sold.*/
    ROW_NUMBER() OVER (PARTITION BY b.brand_id ORDER BY b.cars_sold DESC) AS rank_desc
  -- From the `Collaborator` and `Brand` tables.
  FROM
    Collaborator c
  JOIN
    Brand b ON c.collaborator_id = b.collaborator_id
)

/* select collaborators who are not the top or bottom sellers in any brand. also make sure they
sold at least one brand.*/
SELECT DISTINCT
    cr.collaborator_id,
    cr.collaborator_name
FROM
    CollaboratorRank cr
WHERE
/*verify if the collaborator has sold at least one brand.*/
    cr.brand_id IS NOT NULL
        /*/Verify if the collaborator is not the top or bottom seller in any brand.*/
    AND cr.rank_asc > 1
    AND cr.rank_desc > 1
ORDER BY
    cr.collaborator_id;
```