```sql
SELECT COUNT (DISTINCT utm_campaign)
FROM page_visits;

SELECT COUNT (DISTINCT utm_source)
FROM page_visits;

SELECT utm_campaign,
        utm_source
FROM page_visits
GROUP BY utm_campaign;

SELECT DISTINCT page_name
FROM page_visits;

WITH first_touch AS (
   SELECT user_id,
            MIN(timestamp) as first_touch_at
    FROM page_visits
    GROUP BY user_id),

ft_attr AS (
   SELECT ft.user_id,
            ft.first_touch_at,
            pv.utm_source,
            pv.utm_campaign
    FROM first_touch ft
    JOIN page_visits pv
      ON ft.user_id = pv.user_id
      AND ft.first_touch_at = pv.timestamp
   )

   SELECT ft_attr.utm_source,
            ft_attr.utm_campaign,
            COUNT(*)
    FROM ft_attr
    GROUP BY 1, 2
    ORDER BY 3 DESC;

WITH last_touch AS (
   SELECT user_id,
            Max(timestamp) as last_touch_at
    FROM page_visits
    GROUP BY user_id),
```

```sql
lt_attr AS (
  SELECT lt.user_id,
         lt.last_touch_at,
         pv.utm_source,
         pv.utm_campaign
  FROM last_touch lt
  JOIN page_visits pv
    ON lt.user_id = pv.user_id
    AND lt.last_touch_at = pv.timestamp
 )

SELECT lt_attr.utm_source,
       lt_attr.utm_campaign,
       COUNT(*)
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;

SELECT page_name,
       COUNT (DISTINCT user_id)
FROM page_visits
GROUP BY page_name;

WITH last_touch AS (
  SELECT user_id,
         Max(timestamp) as last_touch_at
  FROM page_visits
  WHERE page_name = '4 - purchase'
  GROUP BY user_id),

lt_attr AS (
  SELECT lt.user_id,
         lt.last_touch_at,
         pv.utm_source,
         pv.utm_campaign
  FROM last_touch lt
  JOIN page_visits pv
    ON lt.user_id = pv.user_id
    AND lt.last_touch_at = pv.timestamp
 )

SELECT lt_attr.utm_source,
       lt_attr.utm_campaign,
       COUNT(*)
FROM lt_attr
GROUP BY 1, 2
ORDER BY 3 DESC;
```