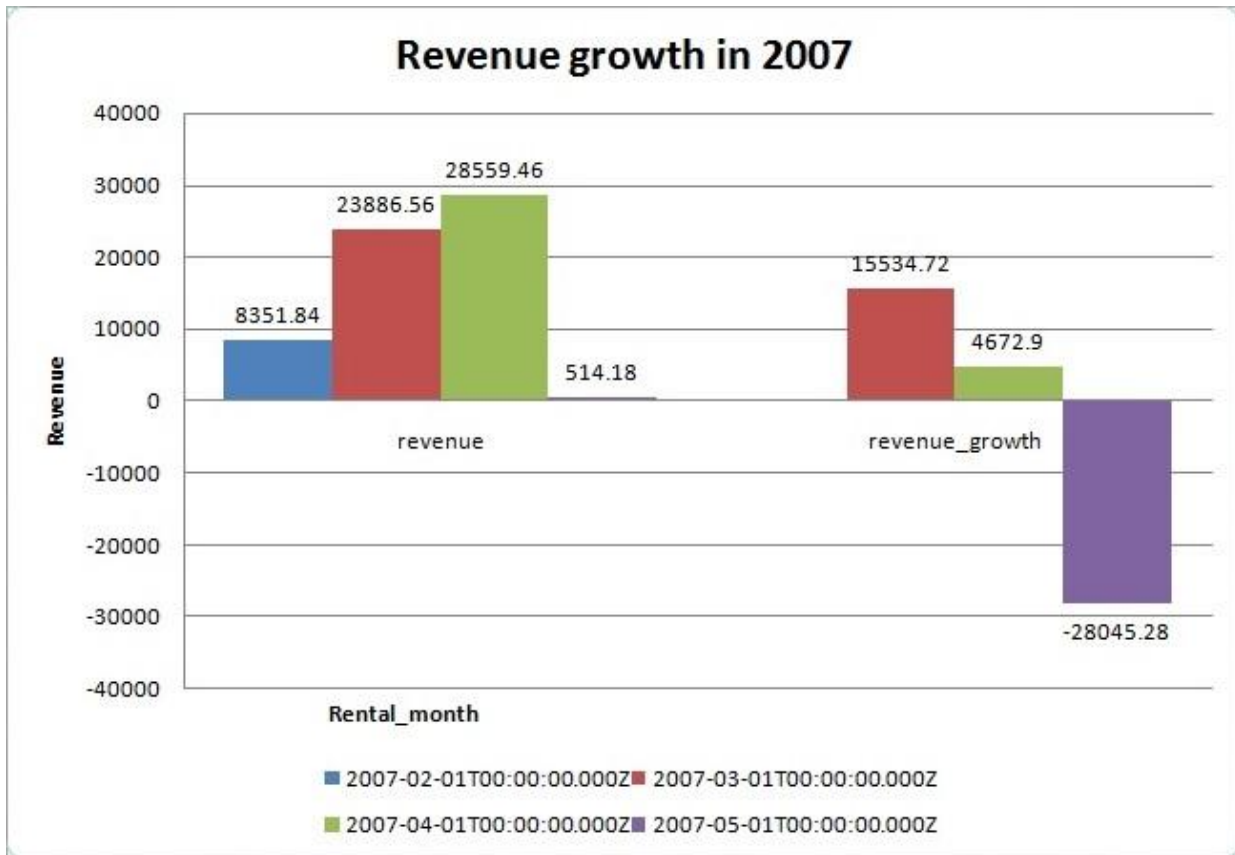


What was the revenue growth in 2007?



Solution ⇒

```
WITH t1 as (select Date_trunc('month',  
p.payment_date) as rental_month,
```

```
sum (p.amount) as revenue
```

```
FROM payment p
```

```
group by 1
```

```
order by 1)
```

```
SELECT rental_month, revenue,
```

```
LAG(revenue) OVER (ORDER BY rental_month)  
AS lag,
```

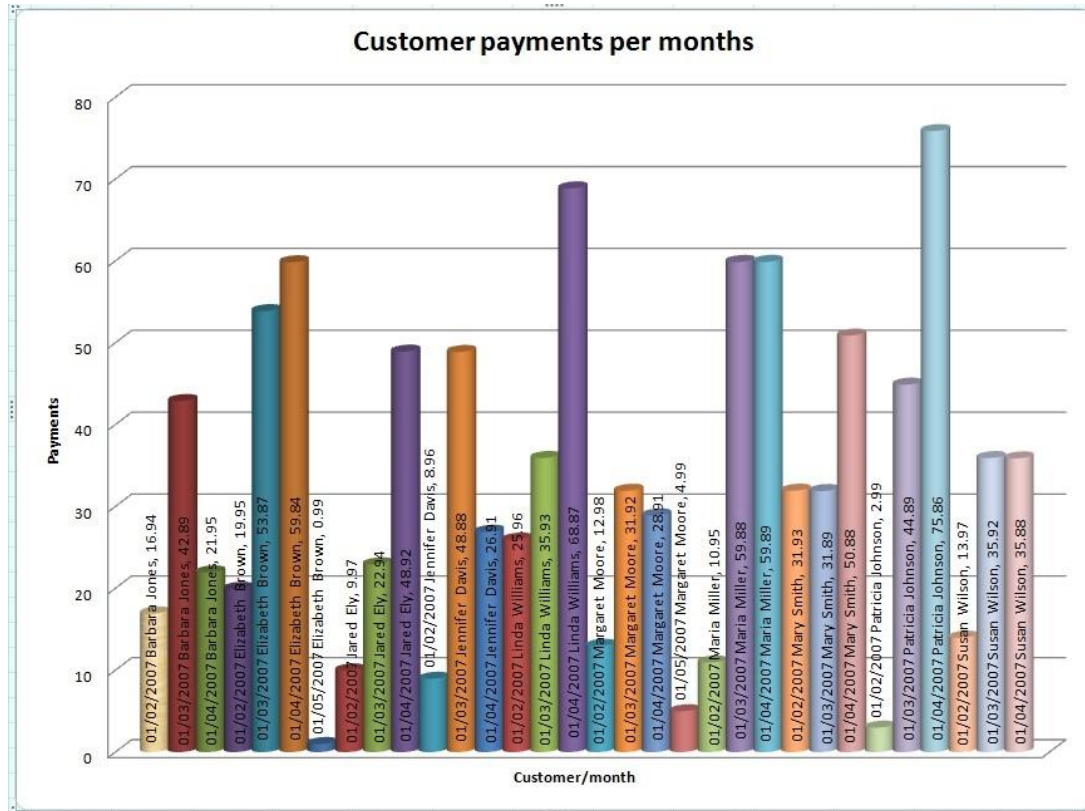
```
revenue - LAG(revenue) OVER (ORDER BY  
rental_month) AS revenue_growth
```

```
FROM t1
```

```
group by 1,2
```

```
order by 1
```

What are the names and the payments of the top 10 new customers?



Solution ⇒

```
WITH t1 as (select c.customer_id, concat(c.first_name, ' ',  
c.last_name) as fullname
```

```
FROM customer c
```

```
order by create_date desc
```

```
limit 10)
```

```
select cast (Date_trunc('month', p.payment_date) AS  
varchar(10)) as payment_month,
```

```
t1.fullname,
```

```
sum (p.amount) as payment_total
```

```
FROM payment p
```

```
JOIN t1
```

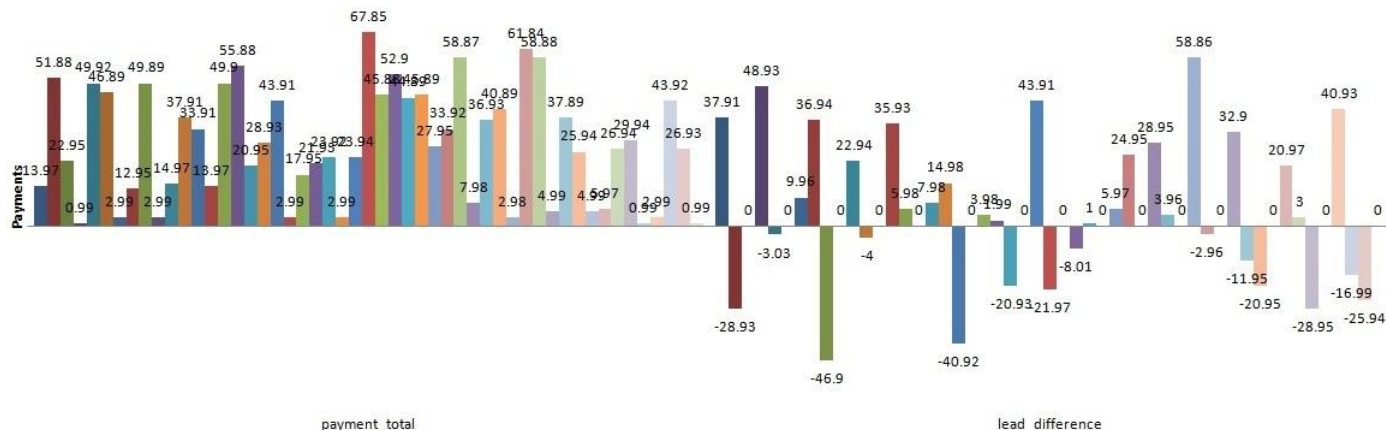
```
on p.customer_id = t1.customer_id
```

```
group by 1,2
```

```
order by 2
```

Compare the payment amounts in each successive month for 50 customers

Payments difference per month



Customer/month

■ Aaron Selby 01/02/2007	■ Aaron Selby 01/03/2007	■ Aaron Selby 01/04/2007	■ Adam Gooch 01/02/2007	■ Adam Gooch 01/03/2007
■ Adam Gooch 01/04/2007	■ Adrian Clary 01/02/2007	■ Adrian Clary 01/03/2007	■ Adrian Clary 01/04/2007	■ Adrian Clary 01/05/2007
■ Agnes Bishop 01/02/2007	■ Agnes Bishop 01/03/2007	■ Agnes Bishop 01/04/2007	■ Alan Kahn 01/02/2007	■ Alan Kahn 01/03/2007
■ Alan Kahn 01/04/2007	■ Albert Crouse 01/02/2007	■ Albert Crouse 01/03/2007	■ Albert Crouse 01/04/2007	■ Albert Crouse 01/05/2007
■ Alberto Henning 01/02/2007	■ Alberto Henning 01/03/2007	■ Alberto Henning 01/04/2007	■ Alberto Henning 01/05/2007	■ Alexander Fennell 01/02/2007
■ Alexander Fennell 01/03/2007	■ Alexander Fennell 01/04/2007	■ Alex Gresham 01/02/2007	■ Alex Gresham 01/03/2007	■ Alex Gresham 01/04/2007
■ Alfred Casillas 01/02/2007	■ Alfred Casillas 01/03/2007	■ Alfred Casillas 01/04/2007	■ Alfredo Mcadams 01/02/2007	■ Alfredo Mcadams 01/03/2007
■ Alfredo Mcadams 01/04/2007	■ Alice Stewart 01/02/2007	■ Alice Stewart 01/03/2007	■ Alice Stewart 01/04/2007	■ Alicia Mills 01/02/2007
■ Alicia Mills 01/03/2007	■ Alicia Mills 01/04/2007	■ Alicia Mills 01/05/2007	■ Allan Cornish 01/02/2007	■ Allan Cornish 01/03/2007
■ Allan Cornish 01/04/2007	■ Allan Cornish 01/05/2007	■ Allen Butterfield 01/02/2007	■ Allen Butterfield 01/03/2007	■ Allen Butterfield 01/04/2007
■ Allen Butterfield 01/05/2007				

Solution ⇒

```
WITH t1 as (SELECT concat (c.first_name, ' ',
c.last_name) as fullname,
```

```
Date_trunc('month', p.payment_date)
as rental_month,
```

```
sum (p.amount) as payment_total
```

```
FROM customer c
```

```
join payment p
```

```
on p.customer_id = c.customer_id
```

```
group by 1,2
```

```
order by 1
```

```
limit 50)
```

```
SELECT fullname, cast (rental_month AS
varchar(10)), payment_total,
```

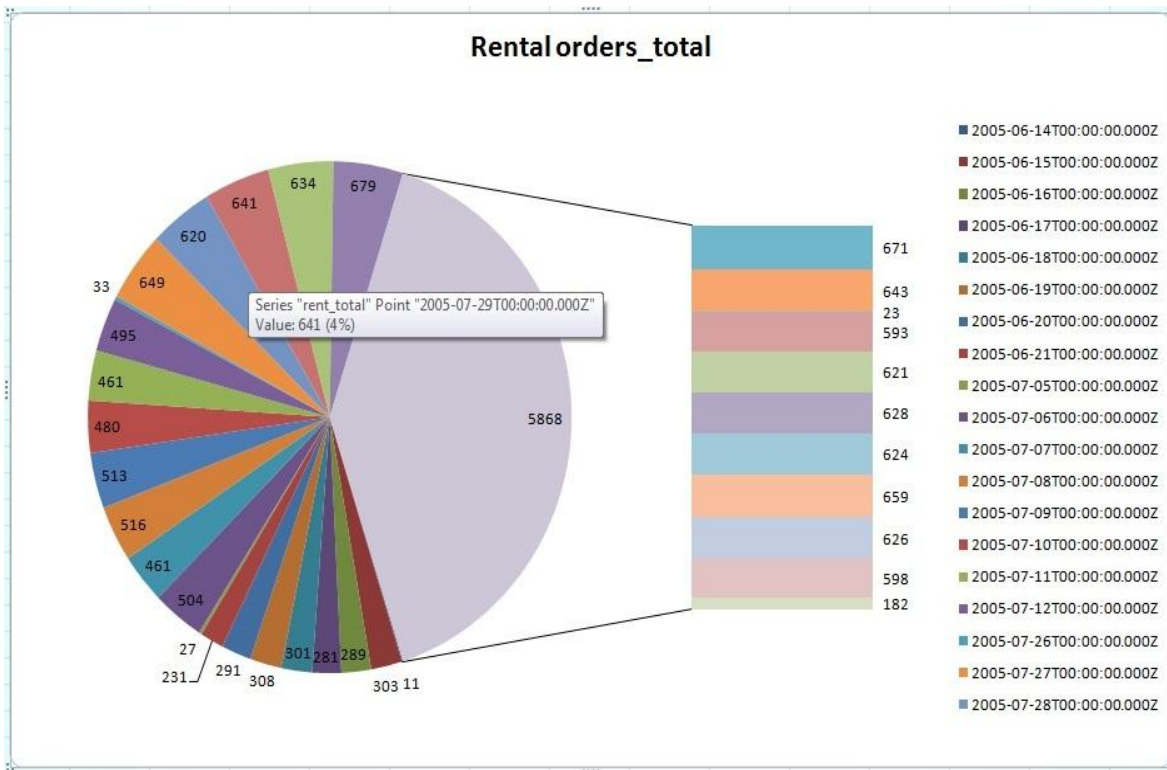
```
LEAD(payment_total) OVER (PARTITION BY
fullname ORDER BY rental_month) -
payment_total AS lead_difference
```

```
FROM t1
```

```
group by 1,rental_month, 3
```

```
order by 1,2
```

Business growth: how many movies were rented? Divide the amount into 4 quarters



Solution ⇒

WITH t1 as (select Date_part('year', r.rental_date) as rental_year,

Date_trunc('day', r.rental_date) as rent_date,

count (r.rental_id) as rent_total

FROM rental r

group by 1,2)

select rental_year, rent_date, rent_total,

Ntile(4) Over (Partition by rental_year Order by rent_total)
as quartile

FROM t1

group by 1,2,3

order by 1,2