
11.3% APY

→ 2.4% compounded monthly

2.6% APY

\[ A = P \left(1 + \frac{r}{n}\right)^{nt} \]

\[ A = 1 \left(1 + \frac{0.024}{12}\right)^{12(1)} \]

\[ A = 1.024265768 \]

\[ \text{APY} = 2.43\% \]

\[ A = P + i = 1.0243 \]

\[ P = -1,000 \]

\[ i = 0.0243 \]

\[ r = \frac{\text{i}}{\text{prt}} \]

\[ 0.0243 = \frac{11}{r(1)} \]

\[ 0.0243 = r \]
\[ \begin{align*}
&\text{4000} \\
&\text{20 mo} \\
&\text{APR} = 7.5\% \\
&\hline
&\text{7.5}\% \\
&\text{20 mo} \\
&\text{20.23} \\
&\hline
&\text{40} \\
&\text{# of 100's} \\
&\hline
&\frac{4000}{100} = 40 \\
&\hline
&\text{b) } P = 4000.00 \\
&\text{i} = 809.20 \\
&\hline
&A = P + i = \$4809.20 \text{ to be repaid} \\
&\hline
&\frac{4809.20}{60} = \$80.15 \text{ per mo} 
\end{align*} \]
$3,200 cash price
20% down 60 mo.
$53.14 per mo.

Find APR

Down payment

$53.14 per mo
x 60 mo

$3,188.40 total paidback
P + i

$640 = down payment

$3,200 total
- $640 down

$2,560 borrowed = P

$P + i = 3,188.40

$P = 2,560.00

i = $628.40 finance charge

Finance charge
Amount financed x 100 =

$628.40 x 100 = 24.55 finance charge for

$2,560

APR = 9.0%

60 mo
24.55
11.4 Charge Cards

Fixed loans
Buy car
Buy refrigerator

Open-ended loans
Charge card

How is the finance charge computed?

1) Average Daily Balance Method
   Principal = avg daily balance

2) Unpaid balance method
   Principal = unpaid balance from the previous month
Ex: On Feb 15, John forgot his credit card payment and had an outstanding balance of $200.
On Feb 19, he charged $100.
On Feb 26, he charged $50.
On March 2, he paid $125.
On March 8, he charged $75.
What was the balance due on March 15?

John uses the balance due on March 15, which is $137.10 per month.

I use the average daily balance method.

<table>
<thead>
<tr>
<th>Date</th>
<th>Transaction</th>
<th>Balance Due</th>
<th># days</th>
<th>Bal x # days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 15</td>
<td>Balance</td>
<td>$200</td>
<td>4</td>
<td>800</td>
</tr>
<tr>
<td>Feb 19</td>
<td>Charge</td>
<td>$300</td>
<td>7</td>
<td>2100</td>
</tr>
<tr>
<td>Feb 26</td>
<td>Charge</td>
<td>$350</td>
<td>4</td>
<td>1400</td>
</tr>
<tr>
<td>Mar 2</td>
<td>Payment</td>
<td>$225</td>
<td>6</td>
<td>1350</td>
</tr>
<tr>
<td>Mar 8</td>
<td>Charge</td>
<td>$300</td>
<td>7</td>
<td>2100</td>
</tr>
<tr>
<td>Mar 15</td>
<td>Final Charge</td>
<td>$303.60</td>
<td>28 days</td>
<td>7750</td>
</tr>
</tbody>
</table>

avg daily bal = $7750 / 28 = $276.79

i = b x r / t
i = $303.60 x 0.013 / 4

i = $3.60 finance charge
Ex. Now take the same problem from the previous page and use the unpaid balance method.

<table>
<thead>
<tr>
<th>Date</th>
<th>Transaction</th>
<th>Balance Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 18</td>
<td>Balance</td>
<td>$200</td>
</tr>
<tr>
<td>Feb 19</td>
<td>Charge $100</td>
<td>$300</td>
</tr>
<tr>
<td>Feb 26</td>
<td>Charge $50</td>
<td>$350</td>
</tr>
<tr>
<td>Mar 2</td>
<td>Payment $75</td>
<td>$225</td>
</tr>
<tr>
<td>Mar 8</td>
<td>Charge $75</td>
<td>$300</td>
</tr>
<tr>
<td>Mar 15</td>
<td>Finance $2.60</td>
<td>$302.60</td>
</tr>
</tbody>
</table>

\[ i = \frac{0.06}{12} \times (1) \]
\[ i = \frac{0.06}{12} \times (1) \]
\[ i = \frac{0.06}{12} \times (1) \]

new balance is $302.60
Tuesday

We will no do early repayment on a loan

Omit PP 624 Bottom -626 Middle
Omit Rule of 78's
Omit Actuarial Method
Do not do 11.4 17-25 odd

11.4 29-37 odd

Practice test 1-6 all

Test 4 Tuesday April 4