## PAYDAY LOANS

You have probably seen "stores" or TV commercials where you can borrow money without going to a bank of other financial institution. This type of short-term loan is often called a payday loan because the term is usually only until your next pay day. These are usually not a good idea as they charge very high rates of interest and it is compounded daily. Many people get into a lot of financial trouble thinking these loans can get actually get them out of trouble.

Example 1: Teresa's car payment of $\$ 450.00$ is due in 3 days and she does not have enough money to pay it. She went to a payday loan store for a loan. She had to repay the store $\$ 536.80$ within 14 days.
a) What is the daily interest rate for the loan?
b) What is the annual interest rate of the loan?

## Solution:

a) Calculate the interest paid, and use the simple interest formula with time in days.

Teresa paid $\$ 536.80-\$ 450.00=\$ 86.80$ in interest
$I=\$ 86.80 \quad P=\$ 450.00 \quad r=? \quad t=14$ days
$r=1 \div(P \times t) \times 100$
$r=86.80 \div(450.00 \times 14) \times 100$
$r=1.38 \%$
The daily interest rate is $1.38 \%$
b) To calculate the annual or yearly interest rate, multiply the daily interest rate by the number of days in a year - 365 days.
$1.38 \% \times 365=503.7 \%$
The yearly interest rate is $504 \%$. WOW!!!
This is why payday loans are not a good idea.
Example 2: Chris borrowed $\$ 125.00$ from a payday loan store and agreed to repay it in 25 days at an interest rate of $1.20 \%$ per day. How much will Chris have to repay?

Solution: Use the simple interest formula using the interest rate as a daily rate and the term in days.

$$
\begin{array}{rl}
I=? & P=\$ 125.00 \quad r=1.20 \% \div 100=0.012 \\
& I=P r t \\
& I=125.00 \times 0.012 \times 25=\$ 37.50
\end{array}
$$

Now add the interest to the amount that Chris borrowed to get the total amount.

$$
\begin{aligned}
& A=P+I \\
& A=\$ 125.00+\$ 37.50=\$ 162.50
\end{aligned}
$$

Chris will have to repay a total of $\$ 162.50$ to the loan store.

## ASSIGNMENT 9 - PAYDAY LOANS

1) Haylie borrowed $\$ 325.00$ from a payday store, and 10 days later she paid back the loan and interest with a cheque for $\$ 365.50$.
a) What was Haylie's daily interest rate?
b) What was Haylie's annual interest rate?
2) Brad borrowed $\$ 250.00$ from a payday loan store. He paid back the loan and interest 9 days later. His annual rate of interest was $425 \%$. How much interest did Brad pay?
3) Mike borrowed $\$ 725.00$ from a payday loan store and agreed to repay it in 15 days at a daily interest rate of $1.67 \%$. How much in total did Mike repay the store?
4) Gurpreet agreed to pay $\$ 527.50$ to a payday company that gave him a loan of $\$ 485.00$ at $1.10 \%$ per day. How many days did he have the money?
