Questions...

1. Rilla bought a new chair for $526.83. She paid for the chair with her credit card at 19.7%, compounded daily.
   a) If Rilla repays the loan in 1 year, how much will her payments be?
   b) When Rilla checked her mail, she had an offer for a new bank credit card with a $100 rebate and an interest rate of 16.7%, compounded daily.
      i) If she had used the new credit card instead, what would her payments have been?
      ii) How much would she have saved with the new credit card?

a)

```
N=12
I%=19.7
PV=526.83
▪PMT=-48.766635...
FV=0
P/Y=12
C/Y=365
PMT:END BEGIN
```

Payment $48.77

b) i)

```
N=12
I%=16.7
PV=426.83
▪PMT=-38.891029...
FV=0
P/Y=12
C/Y=365
PMT:END BEGIN
```

$38.89

ii)

```
48.77-38.89
              9.88
Ans*12
            118.56
```

Saved/month

Saved

EXAMPLE 3 Solving a problem that involves interest amount and rate p. 547

Jon's $475 car insurance payment is due. He does not have enough cash to make the payment, so he is considering these two credit options:

- Borrow the money from a payday loan company for a $100 fee if it is paid back in full within 2 months.
- Get a cash advance on his credit card, which is carrying a zero balance. The interest charged for cash advances is 19.99%, compounded daily, and takes effect immediately. He can afford to pay the required $5 minimum payment after the first month and then plans to pay off the balance in full at the end of the second month.

a) Which is the better option for Jon? Explain.

Interest

Pay Day Loan

$I = \$100$

$A = \$475$

$I = Prt$

$r = \frac{I}{Pt}$

$= \frac{100}{475(2/12)} \times 100\%$

```
100/(475*2/12)*1
00
         126.3157895
```

$= r = 126\%$ wow

BEST → Cash Advance

```
N=2
I%=19.99
PV=475
PMT=243.49918…
FV=0
P/Y=12
C/Y=365
PMT:END BEGIN
```

Payment

```
2*243.50
                 487
Ans-475
                  12
```

Paid Interest

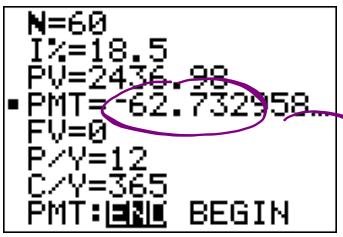
EXAMPLE 4 p. 548 — Solving a debt consolidation problem that involves an interest amount

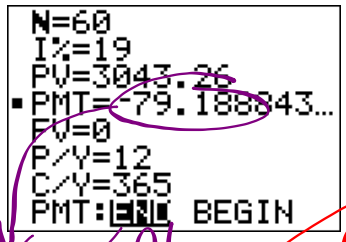
Nicki wants to be debt-free in 5 years. She has two credit cards on which she makes monthly payments:

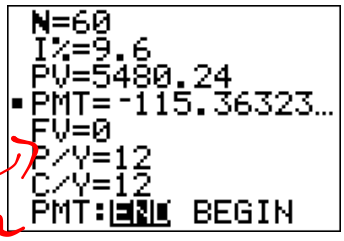
- Card A has a balance of $2436.98 and an interest rate of 18.5%, compounded daily.
- Card B has a balance of $3043.26 and an interest rate of 19%, compounded daily.

Nicki has qualified for a line of credit at her bank with an interest rate of 9.6%, compounded monthly, and a credit limit of $6000. She plans to pay off both credit card balances by borrowing the money from her line of credit. How much interest will she save?

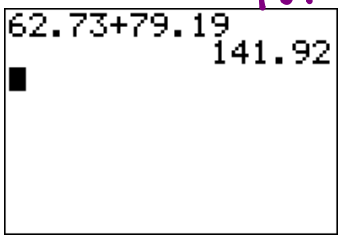
Consolidate → combines loans into a single loan



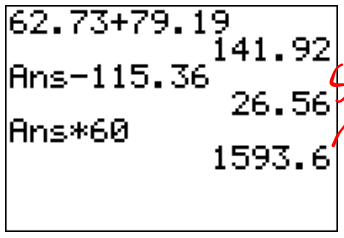




Total



compare



Save/month
Total Savings

In Summary

Key Ideas

- Forms of credit that can be used to make purchases or acquire cash include bank loans, lines of credit, credit cards, payday loans, and dealership or in-store financing.
- There are many factors that determine the best credit option, such as the interest charged, the total payment, the amount of each payment, and the length of time it takes to pay off the loan. All of these factors must be considered carefully before making a decision.

Need to Know

- Credit cards have a credit limit, which is the maximum amount you can borrow. The credit limit varies from person to person, based on credit history.
- Cash advances on credit cards have no period in which no interest is charged and sometimes have a greater interest rate than purchases.
- A line of credit has a lower interest rate than most loans and credit cards. Because of this, a line of credit can be useful for consolidating debt.
- As with a credit card, a line of credit allows for flexibility in how the loan is paid back, as long as the minimum payment is made. The minimum payment is often based on the accumulated interest each month.
- Credit that is offered in conjunction with a special offer or promotion must be considered very carefully. There may be conditions for how the loan is paid back, which may result in unexpected costs or penalties.
- Payday loans must also be considered carefully, since the fee for borrowing is often high.
- An amortization table is particularly useful when you need to know interim values and when payment amounts or interest rates vary throughout the term of a loan.

HOMEWORK...

p. 552: 4, 7, 12