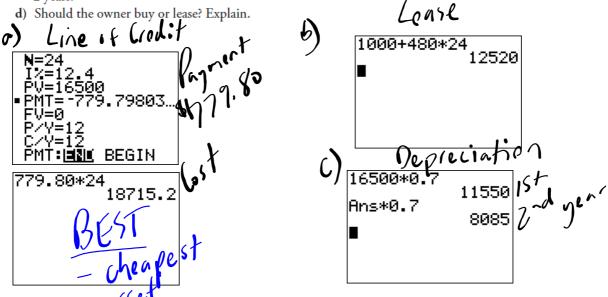# Questions from the homework...

**8.** The cardio equipment at a fitness studio needs to be replaced. The
cost of new equipment is $16 500. The owner of the studio does not
have enough cash to pay for it. She has two options:
 • Use a line of credit with an interest rate of 12.4%, compounded monthly.
 • Lease the equipment for 2 years, for $1000 down and $480 each month.
 **a)** What is the cost of buying with a line of credit if the owner pays
   off the loan in 2 years?
 **b)** What is the cost of leasing for 2 years?
 **c)** The equipment depreciates at 30% per year. What is its value after
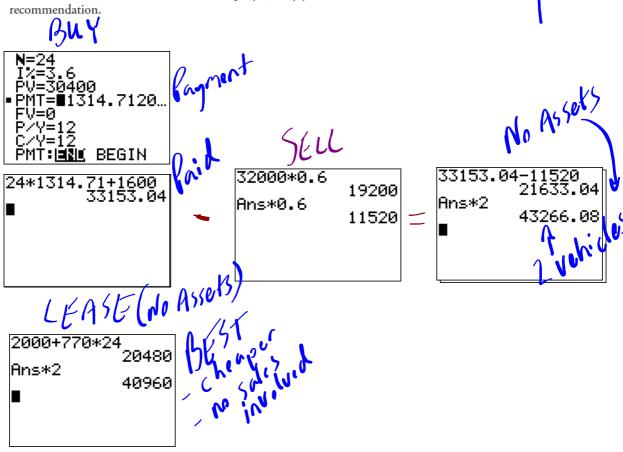   2 years?
 **d)** Should the owner buy or lease? Explain.

a) *Line of Credit*

```
 N=24
 I%=12.4
 PV=16500
▪PMT=-779.79803...
 FV=0
 P/Y=12
 C/Y=12
 PMT:END  BEGIN
```

*Payment*
*$779.80*

```
779.80*24
          18715.2
```
*Cost*

*BEST*
*— cheapest*
*— asset*

b) *Lease*

```
1000+480*24
           12520
▪
```

c) *Depreciation*

```
16500*0.7
           11550  1st
Ans*0.7
            8085  2nd year
▪
```

10. A company has spent $70 000 for car rentals over 2 years. The company's financial officer wants to determine if the company should continue to rent or if it should buy or lease two vehicles instead.
    - A new car costs $32 000. A 5% down payment is required. The rest can be financed at 3.6%, compounded monthly, for 2 years. Assume depreciation of 40% a year and monthly payments.
    - A 2-year lease for a car requires a down payment of $2000 and monthly payments of $770.
    a) Determine the costs of each option: renting, buying, and leasing.
    b) Recommend a course of action for the company. Justify your recommendation.

RENT → $70 000

BUY

```
N=24
I%=3.6
PV=30400
▪PMT=▪1314.7120…
FV=0
P/Y=12
C/Y=12
PMT:END BEGIN
```

Payment

Paid

```
24*1314.71+1600
          33153.04
▪
```

SELL

```
32000*0.6
          19200
Ans*0.6
          11520
```

No Assets

```
33153.04-11520
          21633.04
Ans*2
          43266.08
▪
```

2 vehicles

LEASE (No Assets)

```
2000+770*24
          20480
Ans*2
          40960
▪
```

BEST
- cheaper
- no sales involved

# Ready for the test???  REVIEW Time...

**Chapter 8:  Investing Money**

   - mid chapter review p. 481

   - chp review p. 507

   - chp self test p. 506

**Chapter 9:  Borrowing Money**

   - mid chapter review p. 539

   - chp review p. 573

   - chp self test p. 572

## Cumulative Review...Chp. 8/9 p. 576

**Simple Interest**

$$I = \Pr t$$
$$A = P + I$$
$$A = P + \Pr t$$
$$A = P(1 + rt)$$

**Compound Interest**

$$A = P\left(1 + \frac{r}{n}\right)^{nt}$$
$$I = A - P$$

**Present Value**

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

**Rule of 72 and Rate of Return**

$$Doubling\ Time = \frac{72}{Rate}$$
$$ROR = \frac{\$\,earn}{\$\,invested} \times 100\%$$

**TVM-Solver**

N =
I % =
PV =
PMT =
FV =
P / Y =
C / Y =
PMT : END  BEGIN