

3-1

INTRODUCTION TO CONSUMER CREDIT

You will need:

- Student Notes
- Textbook
- Calculator
- Notebook Paper
- Pen or Pencil

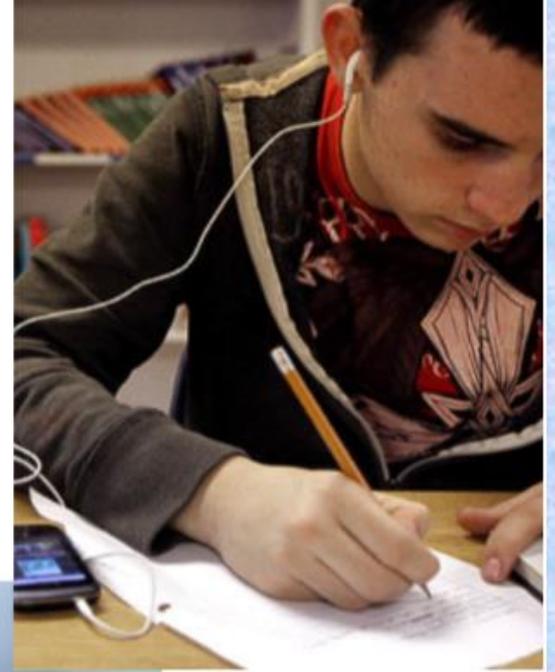
OBJECTIVES

Compute finance charges for installment purchases.

Identify the cost of a bad credit score.



**No Ear
Buds!!!!**



**Cell Phones:
Down & Dark**

Saving for what you want

Example 1

Heather wants to purchase an electric guitar.

The price of the guitar with tax is \$2,240. If she can save \$90 per month, how long will it take her to save up for the guitar?

$$\# \text{ of time periods} = \frac{\text{Amount needed}}{\text{amount saved per period}}$$

$$\begin{aligned}\# \text{ of time periods} &= \frac{2,240}{90} \\ &= 24.9\end{aligned}$$

How long will it take?

It will take **25 months**

**Heather needs the guitar
for her job as a musician.
She just got a job
with a new band
and can not wait
2 years to buy the guitar.**

What can she do to get it now?

Finance it!

Steps to Find the Interest Paid (Total Finance Fees) (With a Down Payment)

- Use a formula:

$$M = \frac{P \left(\frac{r}{12} \right) \left(1 + \frac{r}{12} \right)^{12t}}{\left(1 + \frac{r}{12} \right)^{12t} - 1}$$

M = monthly payment

P = Principal (Original – Down)

r = annual interest rate (converted)

t = length of loan in years

Heather speaks to the salesperson at the music store who suggests that she buy the \$2,240 guitar on the installment plan.

- The plan requires a 15% down payment.
- The remainder, plus an additional finance charge, is paid back on a monthly basis.
- It is a two year installment plan.
- The monthly payment is \$88.75.

a. What is the down payment?

$$\begin{aligned}\text{down payment} &= \text{amount of loan} \times \text{\% down} \\ &= 2240 \times .15 \\ &= \mathbf{\$336}\end{aligned}$$

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b. What is the monthly payment?

\$88.75 given

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c. How much will she pay in just the monthly payments?

$$\begin{aligned}\text{total monthly payments} &= \\ &\text{monthly payment} \times \# \text{ of years} \times 12 \\ &= 88.75 \times 2 \times 12 \\ &= \mathbf{\$2,130}\end{aligned}$$

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d. How much will she pay in total?

$$\begin{aligned}\text{total paid} &= \text{total monthly payments} + \text{down pymt} \\ &= 2,130 + 336 \\ &= \mathbf{\$2,466}\end{aligned}$$

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e. How much will she pay in finance fees?

$$\begin{aligned}\text{total interest} &= \text{total paid} - \text{original principal} \\ &= 2,466 - 2,240 \\ &= \mathbf{\$226}\end{aligned}$$

It cost her an additional \$226 in order to get the guitar now.

At Carpet King all purchases can be paid on the installment plan with no interest, as long as the total is paid in full within six months.

- There is a \$20 minimum monthly payment required.
- The Schuster family buys carpeting totalling \$2,134.
- They will make only the minimum payment for five months.

How much will they have to pay in the sixth month in order to avoid paying interest?

$$\begin{aligned}\text{Total of first few payments} &= \text{amount of payment} \times \# \text{ of payments} \\ &= 20 \times 5 \\ &= 100\end{aligned}$$

$$\begin{aligned}\text{Amount owed} &= \text{total owed} - \text{payments} \\ &= 2,134 - 100 \\ &= \mathbf{\$2,034}\end{aligned}$$

Cecilia purchased \$4,322 worth of home appliances on Appliance Depot's deferred payment plan.

- The plan allows the customer to make no down payment.
- There is a minimum payment each month of \$50.
- If the entire \$4,322 is paid in full before the 3 months is up, there is no interest.
- If it is not paid in full within the 3 months, there is a finance charge with an APR of 21.6% applied each month going back to the first month.

Cecilia loses track of time and makes the full payment one day after the 3 months expired. How much is the interest charge?

Example 4

Cecilia purchased \$4,322 worth of home appliances on Appliance Depot's deferred payment plan.

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Cecilia loses track of time and makes the full payment a week after the 3 months expired. How much is the interest charge?

Due before interest = Beginning Balance – (Monthly payment x
payments)

$$= 4,322 - (50 \times \mathbf{2})$$

$$= \$4,222$$

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Cecilia loses track of time and makes the full payment a week after the 3 months expired. How much is the interest charge?

Variables:

$$I = I$$

$$P = 4,222$$

$$r = .216$$

$$n = 12$$

$$t = 3/12$$

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

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Variables:
$$I = 4222 \left(1 + \frac{.216}{12} \right)^{(12)(3/12)} - 4222$$

$$I = I$$

$$P = 4,222$$

$$r = .216$$

$$n = 12$$

$$t = 3/12$$

$$I = \$232.12$$

What do you need to know before using credit?

YOUR CREDIT SCORE

- Your credit score is like a credit “report card”.
- Your credit score determines the amount of interest you will have to pay!
- If you have bad credit there is a greater risk that you will not pay back the loan.
- Companies need a higher return (interest rate) to compensate for the extra risk.

Credit Score Analysis

- 800 to 850 = exceptional
- 700 to 799 = excellent
- 680 to 699 = good
- 620 to 679 = borderline
- 580 to 619 = low
- 300 to 579 = poor

Mike has a credit rating of 720.

Tyler has a credit rating of 620.

Chuck has a credit rating of 520.

All three apply for identical loans to build a home for \$200,000. It is for one year with simple interest and principal due at the end of one year.

- Mike is approved for a loan at 3.2% interest.
- Tyler is approved for a loan at 8.2% because of his inferior credit rating.
- Chuck does not get approved for a loan.

a. What did Tyler's bad credit score cost him?

He had to pay 5% more

$200,000 \times .05 = \text{\$10,000 in just one year!!!!}$

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- Chuck does not get approved for a loan.

b. What did Chuck's bad credit score cost him?

He does NOT get to own a home!

