

Section 11.2 **Section 11.4 Installment Buying**

Personal notes and discount notes

Two types of installment loans

1. **Fixed installment loans** - Pay a fixed amount of money for a set number of payments. These loans are generally repaid in 24, 36, 48, or 60 equal monthly payments.

Example - College tuition, cars, boats, appliances, and furniture loans.

2. **Open-end installment loan** - a loan on which you can make variable payments each month.

Example - Credit cards, such as, Mastercard, Visa, and Discover.

Advantage of installment buying

The buyer has the use of an article while paying for it.

Disadvantage of installment buying

Some people buy more than they afford.

The interest the buyer must pay means the product actually cost more.

The lender must provide the borrower two things:

1. The annual percentage rate (APR): the true rate of interest charged for the loan. We will use a table to determine the APR.

2. The total **Finance charge**: The total amount of money the borrower must pay for borrowing the money. This includes the interest plus any additional fees charged, such as, service charges, credit investigation fees, and mandatory insurance premiums.

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EXAMPLE 1 *Window Blinds*

Kristin Aiken wishes to purchase new window blinds for her house at a cost of \$1500. The home improvement store has an advertised finance option of no down payment and 7% APR for 24 months.

- a) Determine the finance charge. 111.75
 b) Determine Kristin's monthly payment. $\frac{(1500 + 111.75)}{24} = \67.16

The table gives the finance charge per every \$100

$$FC = \frac{\text{Amount Finance}}{100} \bullet \# \text{ in the table}$$

$$\frac{1500}{100} = 15$$

$$15 \times 7.45 = 111.75$$

APR Table for Monthly Payment Plans (chart from the book)

Number of Payments	Annual Percentage Rate												
	4.0%	4.5%	5.0%	5.5%	6.0%	6.5%	7.0%	7.5%	8.0%	8.5%	9.0%	9.5%	10.0%
	(Finance charge per \$100 of amount financed)												
6	1.17	1.32	1.46	1.61	1.76	1.90	2.05	2.20	2.35	2.49	2.64	2.79	2.93
12	2.18	2.45	2.73	3.00	3.28	3.56	3.83	4.11	4.39	4.66	4.94	5.22	5.50
18	3.20	3.60	4.00	4.41	4.82	5.22	5.63	6.04	6.45	6.86	7.28	7.69	8.10
24	4.22	4.75	5.29	5.83	6.37	6.91	7.45	8.00	8.54	9.09	9.64	10.19	10.75
30	5.25	5.92	6.59	7.26	7.94	8.61	9.30	9.98	10.66	11.35	12.04	12.74	13.43
36	6.29	7.09	7.90	8.71	9.52	10.34	11.16	11.98	12.81	13.64	14.48	15.32	16.16
48	8.38	9.46	10.54	11.63	12.73	13.83	14.94	16.06	17.18	18.31	19.45	20.59	21.74
60	10.50	11.86	13.23	14.61	16.00	17.40	18.81	20.23	21.66	23.10	24.55	26.01	27.48

9. *A New Roof* Nancy Sattler paid \$10,000 for a new roof for her house. She paid 15% as a down payment and financed the balance with a 60-month fixed installment loan with an APR of 7.5%.

a) Determine Nancy's finance charge.

b) Determine Nancy's monthly payment.

$$AF = .85(10000) = 8500$$

$$FC = \frac{8500}{100} \times 20.23 = 1719.55$$

in table ↑

$$b) \frac{8500 + 1719.55}{60} = 170.33$$

$$FC = \$1719.55$$

A New Air Conditioner Juan Avalos paid \$7000 for a new central air-conditioning unit for his house. He paid 20% as a down payment and financed the balance with a 36-month fixed installment loan with an APR of 5%.

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a) Determine Juan's finance charge.

b) Determine Juan's monthly payment.

$$AF = .80(7000) = 5600$$

$$FC = \frac{5600}{100} \times 7.90 = 442.40$$

$$b) \frac{5600 + 442.40}{36} = 167.84$$