11. *New Appliances* Becky Kubiac wishes to purchase all new kitchen appliances for her home for $9900. To finance the purchase, Becky makes a 10% down payment and finances the balance with a 48-month fixed installment loan with an APR of 9.5%.

a) Determine Becky's total finance charge.

b) Determine Becky's monthly payment.

$AF = .90(9900) = 8910$

$FC = \frac{8910}{100} \times 20.59$

$FC = 1834.57$

b) $\frac{8910 + 1834.57}{48} = 223.85$

12. *PT Cruiser GT* Sam Bazzi purchased a 2006 PT Cruiser GT for $25,000. Sam obtained a 60-month, no-money-down installment loan with an APR of 8%.

a) Determine Sam's total finance charge.

b) Determine Sam's monthly payment.

FC

a) $\frac{25000}{100} \times 21.66 = 5415$

b) $\frac{25000 + 5415}{60} = 506.92$

167

160

767

Finance Charge

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

$\frac{FC}{AF} \cdot 100 = \frac{AF}{AF} \times$

Solve for # in table

If you know the number in the table then you know the APR

EXAMPLE 2 *Determining the APR*

Jan Ford is purchasing a new boat for $25,000, including taxes. Jan decides to make a $5000 down payment and finance the balance, $20,000, through her bank. The loan officer informs her that her monthly payment will be $410.33 for 60 months.

a) Determine the finance charge. b) Determine the APR.

Total

a) $410.33 \times 60 = 24619.80$

$- 20000$ AF

4619.80 FC

b) $APR = \frac{4619.80}{20000} \times 100 = 23.10$

60 month

8.5% APR

To determine the APR = $\frac{\text{finance charge}}{\text{amount financed}}$ x 100 then look in the table to match the percentage

EXAMPLE ❸ *Financing a Restored Car*

Tino Garcia borrowed $9800 to purchase a classic 1966 Ford Mustang. He does not recall the APR of the loan but remembers that there are 48 payments of $237. If he did not make a down payment on the car, determine the APR.

a) Finance charge

Total = $237 \times 48 = 11376$

$- 9800$ AF

1576 FC

b) find APR using FC and Amount Financed

$$APR = \frac{1576}{9800} \times 100 = 16.08$$ # in table 7.5%

13. *Financing a New Business* Cheryl Sisson is a hair designer and wishes to convert her garage into a hair salon to use for her own business. The entire project would have a cash price of $3200. She decides to finance the project by paying 20% down, with the balance paid in 60 monthly payments of $53.14.

a) What finance charge will Cheryl pay?

b) What is the APR to the nearest half percent?

HW

a) AF = .80(3200) = 2560

Total = 60(53.14) = 3188.40

3188.40 − 2560 AF

628.4 FC

b) APR = # in table

$\frac{628.40}{2560} \times 100 = 24.55$

9% APR

14. *Financing a Computer* Ilga Ross purchased a new laptop computer on a monthly purchase plan. The computer sold for $1495. Ilga paid 5% down and $64 a month for 24 months.

a) What finance charge did Ilga pay?

b) What is the APR to the nearest half percent?

AF = .95(1495) = 1420.25

Total = 64(24) 1536

1536 − 1420.25 AF

115.75 FC

b) APR

$\frac{115.75}{1420.25} \times 100$ 8.15

7.5%