

In the initial repayment of a lengthy installment loan, most of the monthly payment goes toward interest, not principal. This is illustrated in Example 2.

EXAMPLE 2 Using an Amortization Table

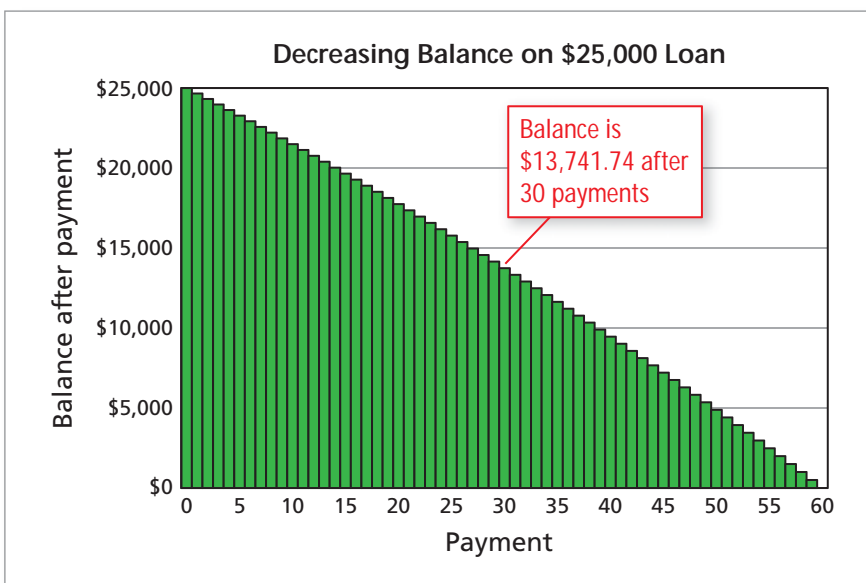
You take out a \$25,000 loan for a new car. The term is 5 years, and the annual percentage rate is 8%. In 30 months, is the remaining balance one-half of the original loan amount?

SOLUTION

Create an amortization table for the loan. Notice that after 30 payments (out of 60), the remaining balance is *not* one-half of the original loan amount.



DATA					
	A	B	C	D	E
	Payment Number	Balance before Payment	Monthly Interest	Monthly Payment	Balance after Payment
1					
2	1	\$25,000.00	\$166.67	\$506.91	\$24,659.76
3	2	\$24,659.76	\$164.40	\$506.91	\$24,317.25
4	3	\$24,317.25	\$162.11	\$506.91	\$23,972.45
...
30	29	\$14,564.11	\$97.09	\$506.91	\$14,154.29
31	30	\$14,154.29	\$94.36	\$506.91	\$13,741.74
32	31	\$13,741.74	\$91.61	\$506.91	\$13,326.44
...
59	58	\$1,500.68	\$10.00	\$506.91	\$1,003.77
60	59	\$1,003.77	\$6.69	\$506.91	\$503.55
61	60	\$503.55	\$3.36	\$506.91	\$0.00
62					



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- a. You make all 60 payments on time. How much interest do you pay?
- b. How much interest do you pay when the annual percentage rate is 9%? 10%?