

Pawn Shop In Exercises 13–16, a pawn shop charges simple interest at an annual percentage rate of 40%. (See Example 5.)

- DATA** 13. Complete the table showing the interest for various terms and principals.

$t \backslash P$	\$100	\$400	\$1000
30 days			
60 days			
180 days			
1 year			



14. You pawn a gold ring and receive a 120-day loan for \$500. What is the interest for the loan?
15. You pawn a television and receive a 30-day loan for 40% of the \$500 resale value. What is the interest for the loan?
16. You pawn a motorcycle and receive a 180-day loan for 60% of the \$2000 resale value. What is the total amount due?

Pawn shops buy and sell merchandise. They also offer loans, using personal belongings as collateral. For example, a pawn shop may offer an individual a loan of \$600 in exchange for an antique with a resale value of \$1000. This is referred to as *pawning* an item. The individual recovers the antique when the loan is paid in full.

Service Charges A pawn shop includes a service charge according to the table. In Exercises 17–19, find (a) the annual percentage rate for only the interest and (b) the annual percentage rate including the service charge. (See Example 6.)

Principal	Under \$100	\$100.01–\$500	Over \$500
Service charge	\$4	\$7	\$10



17. You pay \$5.59 in interest on a 60-day loan for \$85.
18. You pay \$336 in interest on a 1-year loan for \$700.
19. You pay \$10.48 in interest on a 45-day loan for \$340.
20. **Reimbursement** When you do not make your payments and your pawned item sells, you may be entitled to the difference of the selling price and the total amount due. (The total amount due includes expenses incurred by the pawn shop to sell the item.)
- You do not repay the loan in Exercise 16, and the pawn shop incurs \$60 in expenses to sell the motorcycle. Find the sum of the total amount due and the expenses incurred to sell the motorcycle.
 - The motorcycle sells for \$1700. How much money should you receive?