

Applications

Round monetary amounts to the nearest cent.

1. Faith is taking an \$8,100, $2\frac{1}{2}$ -year loan with an APR of 8.22%. What is the monthly payment for this loan?
2. Shania bought a \$1,455 drum set on the installment plan. The installment agreement included a 15% down payment and 18 monthly payments of \$80.78 each.
 - a. How much is the down payment?
 - b. What is the total amount of the monthly payments?
 - c. How much will Shania pay for the drum set on the installment plan?
 - d. What is the finance charge?
3. Pauline's credit card was lost on a business trip. She immediately reported it missing to her creditor. The person who found it hours later used it, and charged w dollars worth of merchandise on the card, where $w < \$50$. How much of the w dollars is Pauline responsible for paying?
4. Carly took a \$7,000, three-year loan with an APR of 8.15%.
 - a. What is the monthly payment?
 - b. What is the total amount of the monthly payments?
 - c. What is the finance charge?
5. Sarah is taking out a \$24,400, four-year new-car loan with an APR of 6.88%. What is the finance charge for this loan? Round to the nearest hundred dollars.

6. The policy of the Black Oyster Pawnshop is to lend up to 30% of the value of a borrower's collateral. Pete wants to use a \$2,000 guitar and a \$900 camera as collateral for a loan. What is the maximum amount that he could borrow from Black Oyster?
7. Juan purchased a tool set for \$ t on the installment plan. He made a 15% down payment and agreed to pay \$ m per month for the next y years. Express the finance charge algebraically.
8. Jake had these daily balances on his credit card for his last billing period. He did not pay the card in full the previous month, so he will have to pay a finance charge. The APR is 18.6%.
- two days @ \$331.98
 eleven days @ \$1,203.04
 four days @ \$996.71
 thirteen days @ \$1,002.76
- a. What is the average daily balance?
 b. What is the finance charge?
9. Kim's credit card was not paid in full last month so she will pay a finance charge this month. She had an average daily balance of \$ d during this billing period, which had 31 days. The APR was $p\%$.
- a. Express algebraically the APR as an equivalent decimal.
 b. Express algebraically the monthly percentage rate as an equivalent decimal.
 c. Express the finance charge algebraically.
10. Michelle's credit card billing cycle is 30 days. She had a daily balance of b dollars for d days. Then she charged one item for \$56, and that was all of the purchases she made for the rest of the month. There was no other activity on the credit card. Express her average daily balance algebraically.
11. The finance charge on Lauren's credit card bill last month was \$13.50. Her APR is 18%. What was her average daily balance?
12. Riel had an average daily balance of \$415.22 on his May credit card statement. The bill showed that his APR was 21.6% and that his finance charge was \$89.69. When he verified the finance charge, did he find that it was correct or incorrect? Explain.
13. What is the monthly period rate on a loan with an APR of 19.5%?
14. Harold borrowed \$8,000 for five years at an APR of 6.75%.
- a. What is Harold's monthly payment?
 b. What is the total amount that Harold paid in monthly payments for the loan?
 c. What is the amount Harold will pay in finance charges?
15. Examine the summary section of a monthly credit card statement. Use the first five entries to determine the new balance.

SUMMARY	Previous Balance	Payments / Credits	New Purchases	Late Charge	Finance Charge	New Balance	Minimum Payment
	\$421.36	\$1,703.50	\$1,273.11	\$0.00	\$9.03		\$18.00