

Course 3 Unit 6 Practice

LESSON 36-1

- What is the simple interest on a loan of \$5500 at a rate of 2.5% for 6 months?
 - \$34.38
 - \$68.75
 - \$82.50
 - \$825.00
- Make sense of problems.** You want to purchase a new laptop for \$1200 on credit. The interest rate is 3.2%, and you will need to pay off the loan in 6 months.
 - How much interest will you pay for 6 months if you are paying simple interest?
 - What will be your monthly payment to repay the loan plus interest?
 - If you changed the term of the loan to 18 months, what is the effect on the interest cost and on your monthly payments?
- Reason quantitatively.** Abraham wants to buy a new television that costs \$1100. He can take out a loan for 6 months at 2.2% or a loan out for 3 months for 3.4%. Which is the best deal for Abraham if he only has \$200 per month for a payment? Explain your reasoning.
- You borrow \$3000 for three years at an interest rate of 3.25%. Your monthly payments are \$92. What is the total cost of this loan?
 - \$276
 - \$2208
 - \$3092
 - \$3312
- Your credit card statement has a balance of \$325.75.
 - What would the minimum payment be at 21% interest?
 - How much would you pay if you pay the full balance by the due date?

LESSON 36-2

6. a. Calculate the simple interest on \$2000 invested at 3.5%.

b. Calculate the compound interest on \$2000 invested at 3.5% when the interest is compounded each quarter.

7. **Attend to precision.** You have decided to save \$30 every month, starting at the beginning of the year. The account carries a 4% interest rate, compounded twice a year. Complete the table to find savings and interest for two years. (Remember that interest is 4% per year, not 4% per 6 months.)

Year	Deposit	Balance	Interest	Total
June (1)	$\$30(6) = \180	\$180	$\$180(0.02)(0.5) = 1.80$	\$181.80
Dec (1)	\$180	\$361.80	\$3.62	
June (2)	\$180			
Dec (2)	\$180			

8. **Use appropriate tools.** Use an online interest calculator. <http://www.thecalculatorsite.com/>

a. If you save \$30 per month for 10 years at 4.5% compounded quarterly, how much will you have at the end of 10 years?

b. If you change your monthly savings to \$60 per month, how much would you have at the end of 10 years?

c. Change the number of years to 15 at \$60 per month, and recalculate the savings.

9. If you save \$50 per month, but keep the cash in a box at your house, how much will you have at the end of three years?
- A. \$600
 - B. \$1200
 - C. \$1800
 - D. \$2100
10. Use an online interest calculator, like the one at <http://www.thecalculatorsite.com>. Joan is saving \$100 per month in a savings account that pays 3% compounded quarterly. Horace is saving \$100 per month in a savings account that pays 3% compounded monthly. At the end of 10 years how much more money will Horace have accumulated?
- A. \$5.00
 - B. \$5.52
 - C. \$6.12
 - D. \$10.52