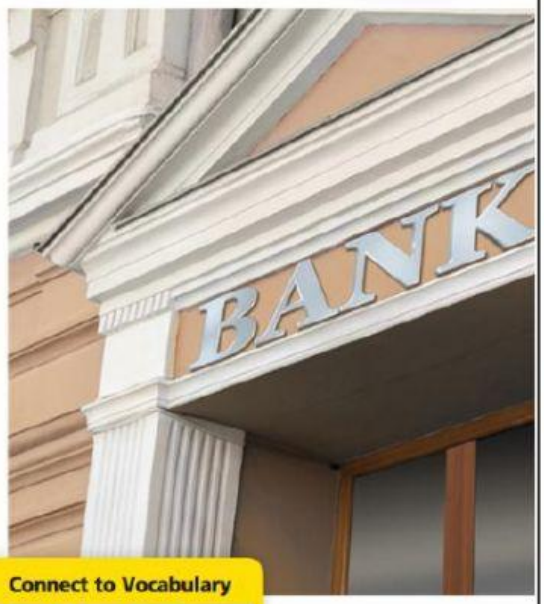
Apply and Practice

Lesson 5

Name _____

Simple Interest

I Can calculate simple interest and the total value of an account after any period of time.
I understand and can apply the equation $I = Prt$.



Step It Out

1 Big Money Bank loans $12,000 to Carlotta. This initial amount borrowed is called the **principal**.

Carlotta has to repay the loan to the bank at a rate of 5.5% simple interest per year over 8 years. What is the total amount of interest she will have to pay on her loan?

Connect to Vocabulary

Simple interest is a fixed percent of the principal. It is calculated using the formula $I = Prt$, where P represents the principal, r the rate of interest, and t the time.

A. Find the amount of simple interest I that Carlotta must pay after one year.

Simple interest, I

= Principal, P · Annual interest rate, r

= ☐ · ☐

= ☐

Carlotta must pay $ _____ in interest after one year.

B. Calculate the total interest Carlotta must pay over the 8 years of the loan.

Interest paid over 8 years

= Interest paid in one year · Number of years

= ☐ · ☐

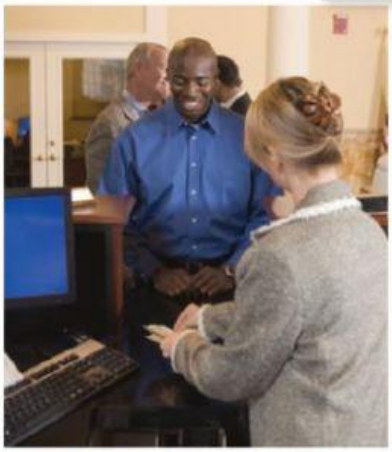
= ☐

Over 8 years Carlotta will pay _____ in simple interest on her loan.

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LIVEWORKSHEETS

2 Emilio opens a savings account at his local credit union with a $5,000 deposit. The account will pay 2.5% simple interest per year. How does Emilio's account grow over time?



If you borrow money from a bank, you will have to pay interest. But if you open a savings account, the bank may pay you interest.

A. Find the amount Emilio's account earns in interest each year.

Simple interest for 1 year

$= P \cdot r$

$= \square \cdot 0.025 = \square$

Emilio's account earns _____ per year in interest.

B. Write an equation for the amount of interest I Emilio's account earns in t years.

$I = P \cdot r \cdot \square$

$I = \square t$

C. How much interest will be added to Emilio's account after 12 years? Show your calculation.

$I = \square t$

$I = \square \cdot \square = \square$

---

3 Melanie deposits $8,200.00 in a bank account paying 4.4% simple interest. How much money will be in her account after 5 years and 6 months?

A. Find the amount Melanie's account earns in interest in 5.5 years.

$I = P \cdot r \cdot t$

$I = 8{,}200 \cdot \square \cdot \square$

$I = \square$

The amount of interest in 5.5 years is $_____.

B. Find the total amount in Melanie's account after 5.5 years.

Total amount

$= P + I$

$= \square + \square = \square$

Melanie's account will contain $_____ after 5 years and 6 months.

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LIVEWORKSHEETS