

Catching Daniel's Interest



Even wizards have bank accounts.

Daniel Radcliffe can't cast spells like Harry Potter, who he has played for the past 10 years. But he does have something in common with the boy wizard. Harry keeps his galleons at Gringotts Wizarding Bank, just like Daniel and us other Muggles keep money in banks.

"It is very important to save money for your future," Daniel told *MATH*. You could keep your money in a piggy bank, but another option is to open a *savings account*.

"I've always been in a very lucky position where, from a young age, I was in a financially very secure position," Daniel said. "My mum has always handled all my finances and my money, so when I was younger, I did not have an appreciation of what a savings account was."

But now Daniel, 21, knows that a savings account earns *interest* over time. When you put

money into a savings account, the bank borrows that money to give loans to other people or to make investments. In return, the bank pays you interest. It is a percent of the money you've deposited in the account. So you're not just saving money; you're earning money too!

Now see how your savings can increase, even without a magic wand.

—by Linda Buchwald

WHAT TO DO
 Read "Understanding Simple Interest." Use that information to answer the questions. If allowed, use a calculator. (Teachers: For an activity on *compound interest*, which most real savings accounts use, go to www.scholastic.com/math.)

UNDERSTANDING SIMPLE INTEREST

- Simple interest is calculated using the *principal*, the money you deposit into a savings account.
- The formula to calculate simple interest is:

$$I = Prt$$

where *I* = interest earned, *P* = principal, *r* = annual interest rate (write the percent as a decimal), and *t* = time in years.

Example: How much interest would you earn at a 2% annual interest rate on \$300 after 3 years?

- $2\% = .02$
- $\$300 \times .02 \times 3 = \18
- You would earn \$18 in interest. So you would now have \$318 in your account.

RADCLIFFE, ROOM, BANK LEFT: JAP BUTENDIJK/2000 WARNER BROS. ENT. HARRY POTTER PUBLISHING RIGHTS U.K.R (3); WIZARD COINS: COURTESY THE NOBLE COLLECTION; COINS RIGHT: SHUTTERSTOCK

1 Let's say Daniel opens a savings account at Third National Savings Bank, where the annual interest rate is 1.1%. He deposits \$500.

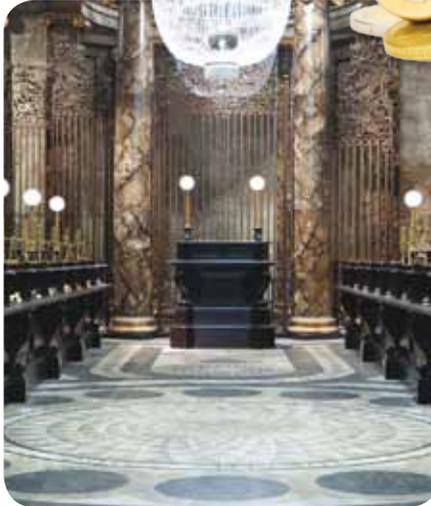
a. What equation would you solve to find the amount of interest he'll earn in 2 years?

b. How much interest will he earn?

c. How much will be in his account after interest is added?

2 The annual interest rate at Hank's Bank is 1.04%. Daniel deposits \$250. How much interest will he earn in...

a. 6 months? (Hint: First convert that to years.)



A look inside Gringotts Bank

b. 15 months?

3 Daniel makes \$39.69 in interest after 3 years with River Bank. The annual interest rate was 1.35%. How much money did he deposit (the principal)?

4 Daniel deposits \$700 in Barber Barbara's Savings & Shavings Bank. After 18 months (and no additional deposits), he has \$711.13 in his account. What is the annual interest rate (as a percent)?

5 At Bank-On-It Bank, the annual interest rate is 1.04%. Daniel deposited \$1,000. In how many months did he earn \$7.80 in interest?

WRITE NOW: What are some other reasons to save money at a bank? Explain on a separate sheet of paper.