Name _____ Date _____

Cashing in Big

Finding Simple Interest

Cal works at a part-time job after school. He wants to buy a car in a few years, and he saves as much money as he can. He puts money in a savings account at a local bank where his money earns simple interest. Use the following formula to solve the problems: $I = p \times r \times t$

I = interest

p = principal, the amount of money in the account

r = rate, the percent of interest paid

t = time, the length of time money is in the account

Note that the rate and time must be in the same unit. For the problems below, express time in years. If necessary, round your answers to the nearest cent.

1 Cal opened his savings account with \$300. The yearly rate of interest was $2\frac{1}{2}$%. The interest was computed every 3 months. Cal set up the problem like this:

$I = p \times r \times t$

$I = \$300 \times 0.025 \times 0.25$

How much interest did Cal earn after 3 months?

_____

2 After a year, Cal had \$480 in his account. The interest rate rose to $2\frac{3}{4}$%. The interest was computed every 3 months. How much interest did he earn after 3 months?

_____

Assuming the interest rate did not change, how much interest did he earn after one year?

_____

3 Learning that the interest rate at another bank was $3\frac{1}{4}$%, Cal closed his first account and opened a savings account at the new bank. He deposited \$600. Both banks computed interest every 3 months. Since the first bank's interest rate was $2\frac{3}{4}$%, how much more interest did Cal earn after 3 months at the new bank?

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4 Cal and his sister Kelli both had savings accounts. Cal deposited \$360 at an interest rate of $2\frac{3}{4}$%, computed every 3 months. Kelli deposited \$400 at an interest rate of $2\frac{1}{2}$%, computed every 3 months. At the end of three months, Cal had earned \$2.48 in interest and Kelli had earned \$2.50. Pleased that she had earned more, Kelli told Cal that her rate of interest was better than his. Cal disagreed. Who is right? Explain your answer on the back of this page.