

NAME: _____

UNIT 1 • RELATIONSHIPS BETWEEN QUANTITIES

Lesson 1: Interpreting Structure in Expressions

Problem-Based Task 1.1.2: Searching for a Greater Savings

Austin plans to open a savings account. The amount of money in a savings account can be found by using the equation $s = p \cdot (1 + r)^t$, where p is the principal, or the original amount deposited into the account; r is the rate of interest; and t is the amount of time. Austin is considering two savings accounts. He will deposit \$1,000.00 as the principal into either account. In Account A, the interest rate will be 0.015 per year for 5 years. In Account B, the interest rate will be 0.02 per year for 3 years. If he could, would it be wise for Austin to leave his money in the account that has less savings for an additional year? Explain your reasoning.

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Coaching

- What is the total amount in Austin's savings if he chooses Account A?
- What is the total amount in Austin's savings if he chooses Account B?
- Which account has more money at the end of the term?
- If Austin left his money in the account that has less savings for an additional year, would this change which account he might select? Explain your answer.