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The expression below can be used to calculate the balance in a savings account for which an initial deposit of  $P$  dollars has been compounded each year for  $t$  years at interest rate  $r$ .

$$P(1 + r)^t$$

Elaine opened a savings account with a deposit of \$1000. The interest on her account is compounded each year at a rate of 2%. Elaine will not make any additional deposits to or withdrawals from her account.

- What will be the balance in Elaine's account at the end of 1 year? Show or explain how you got your answer.
- What will be the balance in Elaine's account at the end of 3 years? Show or explain how you got your answer.

Pavel opened a savings account with a deposit of \$800. The interest on his account is compounded each year at a rate of 2.5%. Pavel will not make any additional deposits to or withdrawals from his account.

- Whose account, Elaine's or Pavel's, will have earned more **interest** at the end of 3 years? Show or explain how you got your answer.