

## Possible Solutions

Todd deposited \$1,600 in an account that earns 7% simple interest every year. His brother Adam deposited \$1,550 in an account that earns 7.5% interest compounded annually. The deposits were made on the same day, and no additional money will be deposited or withdrawn from the accounts. Who will have the most money in their account and how much more at the end of 4 years?

It is important to understand that Todd needs to use the formula for simple interest and that Adam needs to use the formula for annual compound interest. Once the values are substituted into the correct formulas, students can use a calculator to find the amount of money in each account and compare the totals. Adam's account will have about \$21.98 more than Todd's account.

### Todd

$$I = Prt$$

$$I = \$1,600(0.07)(4)$$

$$I = \$448$$

$$\$2,048.00$$

### Adam

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

$$A = \$1,550(1 + 0.075)^4$$

$$A = \$2,069.98$$

Adam's account will have about \$21.98 more than Todd's account.