## Student Worksheet

## NOW YOU TRY: APR, APY AND COMPOUND INTEREST

## Annual Interest

1. Andrea wants to invest $\$ \mathbf{2 , 0 0 0}$ at her bank. She picks an annual certificate of deposit that will pay her 3\% interest each year.
(Remember, $3 \%$ is 0.03 when written as a decimal.)
A. How much interest will Andrea earn for the year?
B. What will Andrea's balance be after one year?
2. Now, let's say Andrea decides to leave her money in the bank for three years.
A. What is the term of Andrea's certificate of deposit?
B. Fill in the table to find out how Andrea's investment grows.

|  | Beginning Balance | $3 \%$ Interest | Ending Balance |
| :--- | :--- | :--- | :--- |
| Year 1 | $\$ 2,000.00$ |  |  |
| Year 2 |  |  |  |
| Year 3 |  |  |  |

Name

## Annual vs. Quarterly Interest

3. Andrea wants to invest $\$ \mathbf{2 , 0 0 0}$ at her bank. She decides to open a statement savings account, which compounds quarterly, instead of an annual certificate of deposit. This statement savings account will pay her a 3\% APR.
(Remember, $3 \%$ is 0.03 when written as a decimal.)
A. How often does Andrea's account compound?
B. What will Andrea's $1^{\text {st }}$ quarter interest payment be?
C. What will Andrea's balance be when the year is over?

|  | Beginning Balance | $3 \%$ Interest | Ending Balance |
| :--- | :--- | :--- | :--- |
| 1st quarter | $\$ 2,000.00$ |  |  |
| 2nd quarter |  |  |  |
| 3rd quarter |  |  |  |
| 4th quarter |  |  |  |

D. What APY will Andrea's statement savings account earn for the year?

## Quarterly vs. Monthly Interest

Andrea wants to invest $\mathbf{\$ 2 , 0 0 0}$ at her bank. She decides to open a money market savings account, which compounds monthly, instead of a statement savings account. This money market savings account will pay her a 3\% APR.
(Remember, $3 \%$ is 0.03 when written as a decimal.)

|  | Beginning Balance | $3 \%$ Interest | Ending Balance |
| :--- | :--- | :--- | :--- |
| 1st month | $\$ 2,000.00$ |  |  |
| 2nd month |  |  |  |
| 3rd month |  |  |  |
| 4th month |  |  |  |
| 5th month |  |  |  |
| 6th month |  |  |  |
| 7th month |  |  |  |
| 8th month |  |  |  |
| 9th month |  |  |  |
| 10th month |  |  |  |
| 11th month |  |  |  |
| 12th month |  |  |  |

4. What APY will Andrea's money market savings account earn for the year?
