

## 5.1 Simple and Compound Interest

Name \_\_\_\_\_ Period \_\_\_\_\_

Interest:

Simple Interest:

Compound Interest:

Vocabulary/Formulas:

**Suppose that Nico deposits \$1000 into an account that earns 5% simple interest each year.  
Suppose that Raul deposits \$1000 into an account that earns 5% compound interest each year.**

1. Use the simple and compound interest formulas from the situations for Nico's simple interest account and Raul's compound interest account to complete the table. Round the values to the nearest cent.

Quantity	Time	Simple Interest Balance	Compound Interest Balance
Units			
Expression			
	0		
	1		
	2		
	8		
	100		

2. Terrell is looking for some financial advice. He has the option to deposit \$1000 into the simple interest account just like Nico’s account, or a compound interest account just like Raul’s account. The compound interest account would cost him a one-time start-up fee of \$200. The simple interest account is free. Into which account would you tell Terrell to put his money and why?

3. Graph the simple interest and compound interest functions on desmos.com. Then, sketch and label the graphs on the given grid.

▶ X-Axis      
 $0 \leq x \leq 40$     Step: 5

▶ Y-Axis      
 $0 \leq y \leq 6000$     Step: 1000



### Check for Students' Understanding

Suppose that your family deposited \$10,000 in an interest bearing account for your college fund that earns 4% simple interest each year and a friend’s family deposited \$10,000 in an interest bearing account for their child’s college fund that earns 4% compound interest each year.

Use the simple and compound interest formulas to complete the table and round the values in the table to the nearest cent.

	Time	Simple Interest Balance	Compound Interest Balance
Units			
Expression			
	0		
	1		
	2		
	3		
	10		

How much money will you and your friend have in the college funds when you each turn 18 years old?