

## Section 7.1 Explore Simple Interest and Compound Interest

- Calculate the simple interest earned on each investment.
  - \$1000 at 3% per year for 5 years
  - \$5000 at 4.5% per year for 2 years
  - \$16 000 at 5% per year for 18 months
  - \$8000 at an annual interest rate of 3.75% for 10 years
- Find the amount of each investment in question 1 at the end of the investment period.
- Find the amount of each compound interest investment.
  - \$2000 invested at 5.5% per year, compounded annually, for 3 years
  - \$9000 invested at 3.6% per year, compounded semi-annually, for 2 years
  - \$10 000 invested at 2.7% per year, compounded quarterly, for 18 months
  - \$7500 invested at 2% per year, compounded bi-monthly, for 6 months
- Find the total interest earned for each investment in question 3.
- Sally invested \$5000 at 4% simple interest paid annually for 6 years. Complete the table of values and sketch a graph of her investment.
 

Year	Value (\$)
0	5000
1	
2	
3	
4	
5	
6	
- Find the difference in the amount of interest earned on \$6000 invested in a 5-year GIC for these two plans.
 

**Plan A:** 3% per year, simple interest  
**Plan B:** 3% per year, compounded annually
- Phil deposits \$3000 into a savings plan that pays interest at 4.2% per year, compounded annually. How much will he have in his account after 3 years?
- A financial institution offers Mel two investment options.
 

**Plan A:** 5.0% per year, simple interest  
**Plan B:** 4.3% per year, compounded annually

  - If he has \$4000 to invest, which plan should he choose if he can invest for
    - 2 years?
    - 10 years?
  - How much additional interest will he earn by choosing the better plan for each amount of time in part a)?
- Eight years ago, Hannah's parents invested \$6000 at an annual interest rate of 4.8%, compounded annually, to help pay for her college education.
  - Create a table of values and sketch a graph of the investment.
  - Describe how this investment grows compared to a plan paying 4.8% simple interest per year. Draw a graph for this plan on the same set of axes as the graph in part a).