

Name: _____

Date: _____

Assignment Section 5.3

1. Determine the simple interest earned on a \$10 000 investment with a 3% interest rate after the following time periods.
 - a) 1 year
 - b) 2 years
 - c) 3 years
 - d) 4 years
2. Determine the simple interest earned on a \$5000 investment with a 4% interest rate after the following time periods.
 - a) 1 year
 - b) 6 months
 - c) 3 months
 - d) 1 month
3. Determine the simple interest earned on a \$1000 investment with a 6% interest rate after the following time periods.
 - a) 1 year
 - b) 18 months
 - c) $2\frac{1}{2}$ years
 - d) 90 days
4.
 - a) Determine the future value of \$2000 invested at 5%, compounded annually for 3 years.
 - b) What would be the future value at the end of 3 years if the investment paid simple interest annually?
 - c) How much more would be earned by compounding the interest?
5.
 - a) Determine the future value of \$8000 invested at 4%, compounded annually for 2 years.
 - b) What would be the future value at the end of 2 years if the investment paid simple interest annually?
 - c) How much more would be earned by compounding the interest?
6. Evan wants to save \$1200 to purchase a computer. He receives a gift of \$600. He thinks he will buy a GIC rather than put the money in his bank account. His bank offers GICs at a simple interest rate of 1.5%.
 - a) At this interest rate, how much will Evan earn in 1 year?
 - b) How much will he earn in 2 years?
 - c) How long will it take for Evan's \$600 to double?
 - d) Suggest a better strategy for Evan to achieve his goal.
7.
 - a) What amount of money, invested at 6% interest, earns \$200 interest in 3 years?
 - b) What interest rate results in \$1500 earning \$150 interest in 3 years?
 - c) How long does it take \$3000 to earn \$300 at an interest rate of 3%?

Assignment 5.3 (continued)

- 8.** A bank offers better interest rates the longer you invest your money. The term deposits pay simple interest.

Term Deposits	
Term	Interest Rate
1 year	1.15%
2 years	1.30%
5 years	1.85%
10 years	2.25%

- a)** Calculate the interest earned in each case on a deposit of \$5000.
- b)** Determine the future value of each term deposit.

- 9.** Jennifer purchased a \$500 Canada Savings Bond on September 30. The bond pays 0.65% interest in its first year.
- a)** Determine the interest that she will be paid 1 year after buying the bond.
- b)** On June 30, Jennifer decided to cash the bond. What fraction of a year did she own the bond for?
- c)** How much interest will she be paid when she cashes the bond?

- 10.** Beth invested \$1000 in a GIC that pays compound interest. She will be guaranteed 1.5% interest each year for 2 years with interest compounded annually. Determine the future value of Beth's investment.