

Date _____

Name _____

9.1 Simple Interest

_____ is interest paid only on the _____ deposited or the amount borrowed, called the _____. The _____ is the length of _____ over which the money is deposited or borrowed. The interest rate is often expressed "_____", which means per year.

The amount of simple interest accumulated on an investment or loan is calculated using the following formula:

I is the _____ earned or due. P is the _____.

r is the _____, expressed as a _____.

t is the term (_____) of the investment or loan, in _____.

For an investment, you can calculate the total value at the end of the term using this formula.

A is the _____ of the investment.



Recall: Express each amount of time in years:

- 18 months _____
- June _____
- 150 days _____
- 20 weeks _____
- 36 months _____
- 54 months _____

1. Calculate the simple interest earned on each investment:

a) \$500 for 6 months at 8% per year

c) \$450 for 6 years at $6\frac{1}{4}\%$ per year

b) \$1000 for $2\frac{1}{2}$ years at 3% per year

d) \$600 for 5 years at 3.75% per year

2. You decide to invest \$300.00 from your savings. You have two options:

- ❖ Option A: Lend it to your parents for 1 year at an interest rate of 5% per annum.
- ❖ Option B: invest it for 3 years at a bank that pays simple interest of 6% per annum.

a) What amount of interest will you receive with each option?

b) Describe an advantage to choosing each option.

3. What happens to the amount of interest earned when the principal and the term stay the same but the rate doubles?

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5. **How much money** would you have after 10 years if you deposited \$1000.00 at a rate of 4.50% simple interest per annum.

Earning interest in a regular savings account is _____. To increase the amount of interest earned, investors may choose a **Guaranteed Investment Certificate** _____. This investment involves very low _____ for the investor with an amount of interest guaranteed by the bank. While it pays _____ than a regular savings account, it is usually worth _____ than other investments which may involve more risk.

6. Ron's business has \$22 000 in cash available to invest for a short period of time. He buys a 6-month GIC that will pay 1.95% simple interest.

a) How much interest will he earn?

b) Determine the future value of his investment.

7. Don invested \$1000 for three years into a GIC that matured at \$1063. What was in the simple interest rate?

8. Jon invested \$15 000 at 2.83% simple interest and cashed in \$15 212.25. How long was his money invested for?

A term deposit is similar to a GIC in that you guarantee the money for a set amount of time and the bank guarantees the interest rate. Calculate the interest earned and future value of each term deposit if \$1500 is invested.

1 year term	2.95% simple interest		
2 year term	3.10% simple interest		
3 year term	3.15% simple interest		