

GRADE12 APPLIED
UNIT B – PERSONAL FINANCE
EXERCISE - SIMPLE INTEREST

Name: _____

Date: _____

Simple Interest Formula: $I = P \cdot r \cdot t$ where :

- **I** is the amount of interest earned [\$],
- **P** is the amount of **P**incipal invested (or borrowed) [\$],
- **r** is the **r**ate of interest (expressed as a decimal eg: 5% = 0.05 or 5/100) based on an Annual Percentage Rate (**APR**); and
- **t** is **t**ime measured in years [years].
 - (note for example that 7 months is really just **7/12** years)

By law, all interest rates have to be shown as APR

1. Julian's **CSB** pays him **5%** simple interest.

CSB = Canada Savings Bond

- a. How much interest will he earn on **\$2,000** deposited in his account for one year?
- b. What will be the total value of this **CSB** investment at the end of **one year**?

2. The account in which Flora deposits her money pays **5¼%** simple interest annually (APR). **How much interest** will she earn on a deposit of **\$3,000.00** left in the account for **6** months?

3. Murray *has earned* **\$12.00** in interest on **\$200.00** that he had deposited in his account one year ago. What **rate of interest** (APR) was the account earning?

4. Larry was thinking of purchasing a big screen TV for **\$4,000** one morning. The salesperson said that if Larry just paid for it fully with cash today that he could *'knock off'* **\$100** from the price of the TV. Larry knows that he will get his income tax rebate of about **\$5,000** in **30** days.

a. How much will it cost Larry to borrow the **\$3900** he needs over a period of 30 days at **10%** interest APR?

b. Would Larry be better off to take the **\$3900** loan and buy the TV today or wait for his Income Tax Rebate?

5. A person borrowed **\$9,000** from a business associate. Three months later the loan was fully repaid with a cheque for **\$9337.50**. What **rate of interest** (APR) was the person charged?

6. A student was thinking of buying an 'old beater'. The student took out a personal loan from his uncle for **ten** months in order to purchase the vehicle. His uncle said he would only charge the student **12%** interest (APR). The student eventually paid **\$325** in interest at the end of the loan period. How much was the **amount of the loan**?

<p><i>'Per annum'</i> means per year</p>
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7. How many months will it take for a **\$4,000** deposit to earn **\$160** interest at **16%** per annum?

ANS: 1a. \$100, 1b. \$2,100 2. \$78.75 3. 6% 4a. \$32.06 4b. Yes 5. 15% 6. \$3,250
7. 3months