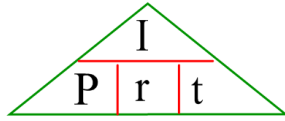$$I = \Pr t \qquad A = P + I$$

$$A = P\left(1+\frac{r}{n}\right)^{nt} \qquad I = A - P$$

$$Rule\ of\ 72 = \frac{72}{Rate}$$

PART A – Multiple Choice (12 Marks)
Circle the letter corresponding to the correct solution.

1. Which of the following **must** be done at a bank with a teller?

[A] withdraw money   [B] transfer money   [C] bill payments   [D] exchange money

2. Mr. Hallihan's credit card statement last month showed that he owed $538.45. What is the **minimum payment**?

[A] $10.77   [B] $26.92   [C] $53.85   [D] $134.61

3. K.C. takes out a loan of $32 775 for a term of 5 years. If she pays monthly payments of $586.05, how much **finance charge** will be paid on the loan over the 5 years?

[A] not enough information   [B] $2388.00   [C] $2930.25   [D] $35 163.00

4. Pat invests $750 at 4%/a **compounded semi-annually**. How much will his investment be worth after **2 years**?

[A] $811.82   [B] $877.39   [C] $780.30   [D] $810.00

5. Kelly borrowed $1200 at a rate of 8 % / year and was charged $144 simple interest. What was the term of her loan?

[A] 0.5 years   [B] 1 year   [C] 1.5 years   [D] 2 years

6. What is the **simple interest** on a loan of $1875 for 40 weeks at 9.5% interest?

[A] $137.02   [B] $593.75   [C] $142.50   [D] $1370.19

7. A payday loan store charged $10 interest for a loan of $150. If you paid back the $150 after 14 days, what was the **annual interest rate** on this loan?

[A] 6.7 %   [B] 18.5 %   [C] 93.3 %   [D] 174 %

8. Which interest period gives the **least** return for one year of compound interest at 4 %/a?

[A] weekly   [B] monthly   [C] quarterly   [D] semi-annually

9. With a **cash advance**, the interest is…

[A] calculated daily from the withdrawal date

[B] calculated monthly from the withdrawal date.

[C] calculated daily on the balance owing after 30 days.

[D] calculated monthly on the balance owing after 30 days.

10. On January 1, Mr. Hallihan withdraws $950 cash from his BMO credit card. This transaction appeared on his January 17 monthly statement but he did not pay off this amount until January 23. If his card has a cash advance rate of 11.5 % per year, how much **interest** would be charged?

[A] $9.28   [B] $6.88   [C] $5.09   [D] $2.39

11. How long will it take an investment of $800 to **double** in value with an interest rate of 4 %/year compounded annually?

[A] 12 years   [B] 12.5 years   [C] 18 years   [D] 24 years

12. Janna invests $800 into a Canada Savings bond that pays 2.2 % **simple interest**. How much will the investment be worth after **10 years**?

[A] $176   [B] $944.49   [C] $976   [D] $2560

1. Rodney borrows $3500 from his uncle to purchase a used car. He agrees to repay the money in three years time at an interest rate of 8%/a **simple interest**, how much will he owe his uncle in three years?   [2]

Amount Owed = $_____

b) If his uncle had charged 8%/a **compounded semi-annually**, what would he owe to repay the loan after three years?   [2]

Amount Owed= $_____

2. Some lucky Miramichier won $3 500 000 on the Saturday night Lotto 649 draw.
    a) If this person chose to invest the entire amount at 3.5%/a **compounded monthly** for 1 year, how much would their winnings be worth at the end of the year?   [2]

Amount = $_____

b) How much interest would they earn after one year from the above investment?   [1]

Interest = $_____

c) If the $3 500 000 winnings were invested at 4%/a **compounded quarterly**, how much money would they have in 9 months time?   [2]

Amount = $_____

d) How much money would this $3 500 000 earn in two weeks if invested at 3%/a **simple interest**?   [2]

Interest = $_____

4. On January 2, Anita Paysanta withdraws $500 cash on her credit card. This withdrawal appears on her monthly statement issued January 15. Anita does not pay off this amount until January 22. Her credit card company's simple interest rate is 19 % per annum . Assuming that this is her only activity on the credit card... [4]

    a)   Determine the minimum payment on the January 15th statement .   b) Determine the total interest paid on January 22nd.

Minimum Payment = $_____   **Total Interest = $_____**

5. "Lainey the Loan Shark" has agreed to lend you $4850 to purchase a ice cream stand that will be used as a summer business. The loan must be repaid in two years. She provides two options to repay the loan…

        OPTION A: *34%/a simple interest*   **OPTION B: 27%/a compounded quarterly**

a) Determine **how much interest** will be charged with each option. [5]
b) Which option is **cheaper**, and by how much? [1]

               OPTION A   **OPTION B**

         Interest = $_____   **Interest = $_____**

          Cheaper Option: _____   **By How Much? $_____**

6. Using your loan payment table, determine…(i) the monthly payment (ii) total amount paid (iii) the finance charge

a) Malia is going to take out a loan of $6250 to purchase a 26' Sharpe Canoe in Restigouche. The bank gives her a rate of 6.5 % per year and she plans to pay it off in 3 years. [3]

Monthly Payment = $_____   **Total Amount Paid = $_____**   **Finance Charge = $_____**

b) Shaylin buys a new 2016 Arctic Cat 700 ATV for $10 599 plus HST. She has decided to finance with Patterson's sales with a rate of 8 %/a over 5 years. [4]

Monthly Payment = $_____   **Total Amount Paid = $_____**   **Finance Charge = $_____**

7. Ima Broke wants to open a bank account at the Scotiabank. She chooses the Value account which gives her 10 free self-service transactions. The bank charges $0.50 for each additional self-service transaction and $1.00 for all teller transactions. There is also a monthly fee of $9.75. What was the total banking fee for the month given the following transactions? [3]

        - she made 12 withdrawals from a Scotiabank ATM.
        - she pays her mobile phone, satellite and power bills online.
        - she deposited $200 to a Scotiabank ATM
        - she exchanged $550 CAD into US Dollars.

                                Total Banking Fees = $_____