**Pre-Calculus Mathematics 10**

\_\_\_\_/50

**Chapter 7 Test**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: May 29, 2022**

**Mr. Formaran**

**True or False \_\_\_\_\_\_/10 marks**

\_\_\_\_\_\_\_\_1. Principal is the fee charged for the use of money

\_\_\_\_\_\_\_\_2. When interest is calculated on the principal plus any previously earned interest is

called compound interest.

\_\_\_\_\_\_\_\_3. Gross pay includes commission bonuses and tips

\_\_\_\_\_\_\_\_4. The Canadian tax system is a progressive system.

\_\_\_\_\_\_\_\_5. Deduction includes federal tax, provincial tax, EI, CPP and sick leave.

\_\_\_\_\_\_\_\_6. Future Amount = Principal + Interest [A = P(1 + rt)]

\_\_\_\_\_\_\_\_7. Compounded monthly means the rate will be divided by 4

r

n

\_\_\_\_\_\_\_\_8. Future Amount, A = P(1 + )nt

\_\_\_\_\_\_\_\_9. Net pay refers to any money your employer pays to you before deduction.

\_\_\_\_\_\_\_10. Gross pay is the amount of money you actually receive each pay period.

**Complete the tables below (Round up to hundredths) \_\_\_\_\_/14 marks**

|  |  |  |  |
| --- | --- | --- | --- |
| **Principal** | **Rate** | **Time** | **Interest** |
| $400 | 3% | 4 years | (2 marks) |
| (2 marks) | 4% | 15 years | $3 500 |
| $3 000 | (2 marks) | 5 years | $2 000 |
| $40 000 | 10% | (2 marks) | $20 000 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Principal** | **Rate** | **Compounded** | **Time** | **Future Amount** |
| $4 000 | 5% | monthly | 5 years | (3 marks) |
| (3 marks) | 10% | weekly | 5 years | $100 000 |

**Word Problems \_\_\_\_\_\_/15 marks**

**(Show your given, substitution/solution and encircle the final answer)**

1. If you put $500 into a savings account that earns 5%, how much interest will you receive at the end of 5 years? (3 marks)

2. Yazia borrowed $5 000 at 9.5% simple interest to build a swimming pool.

If she paid $1 225 interest, find the term (in year) of the loan. (3 marks)

3. Kurapika receives a yearly base salary of $40 000, plus a 10% performance bonus, plus

5% holiday pay. What is Kurapika’s average gross pay each week? (3 marks)

4. Ding has a 40 hour work week at $30.00 per hour and averages 5 hours of overtime per

week at time and a half. His federal and provincial taxes are combined rate at 20.2%. He has deductions for CPP, EI and MSP of $5 900.50, minus a federal and provincial tax credit of $3 706. What is Ding’s bi-weekly net pay? (6 marks)

**Complete the paycheck to find the net pay. \_\_\_\_\_/5 marks**

Round up to 2 decimal places.

**Paycheck Stub**

Employer Name Telephone

Pre-Cal 10 Infinity 123 456 7890

Address

150 Math Street, Whitehorse, YT.

Employee Name SIN

Student Blues 000 111 222

Address

3.14 Pi Street, Whitehorse, YT.

Period Ending: May 27, 2022 Pay Date: June 1, 2022

|  |  |  |  |
| --- | --- | --- | --- |
| Earnings | Rate | Hours | **Gross Pay** |
| Full - time | $29.15 | 40 | \_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| Deductions | |
| Federal Tax (13.5%) | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Provincial Tax (8.3%) | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| EI | $ 101.50 |
| CPP | $ 78.25 |
| Medical/Health Insurance | $ 39.20 |
| Union Dues | $ 20.70 |
| Other |  |
| **Total Deductions** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
|  | |
| **Net Pay** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Word Problems (Show your solution and encircle the final answer) \_\_\_\_\_/6 marks**

Shiela has a gross annual income of $59 721.54 Her deductions excluding federal and provincial taxes are: CPP $3 198.45, EI $821.56, Union dues $867.00, and RRSP contributions $8500.00. What is Shiela’s semi-monthly net income?