

**Show work on looseleaf and then transfer the final answer to the provided space**

1. For a certain kind of plaster work, 1.5 m<sup>3</sup> of sand are needed or every 100 m<sup>2</sup> of surface. How much sand will be needed for 450 m<sup>2</sup> of surface? \_\_\_\_\_
2. Digital Universe is a video game store that made a profit of \$1575 on the sale of 340 games. How much profit would the store expect to make on the sale of 150 games? \_\_\_\_\_
3. Jane plans to buy an Ipod but has waited for it go on sale. The regular price of the iPod is \$169.99 but it has been discounted by 20%. How much will Jane pay for the iPod (tax included) if she buys it in Halifax, Nova Scotia? (HST 15%) \_\_\_\_\_
4. Claude works on the assembly line at a furniture manufacturing plant. He receives a wage of \$18.40/hour for hours worked Monday to Friday. On the weekend he earns time and a half. Claude works Tuesday to Sunday, for 7 hours a day. Calculate his earnings for the week. \_\_\_\_\_
5. The wholesale price of a snowblower is \$788.95. The markup is 65%. What is the retail price? \_\_\_\_\_
6. Lucy wants to make a \$6 profit on every decorated Christmas wreath she makes. If it costs her \$10 to make a wreath, then by what percentage will she mark up the price? \_\_\_\_\_
7. The retail price of a generator is \$617.40. The wholesale price was \$420. What is the percent markup? \_\_\_\_\_
8. Calculate the sale price of a Blue Ray player that regularly sells for \$129.00 and is on sale for 40% off. \_\_\_\_\_
9. The regular price of a bedroom set is \$358.99, but it is on sale for 35% off. What will the customer pay (tax included) if the bedroom set is sold in PEI? (15% HST) \_\_\_\_\_
10. The cost of a pack of 12 hamburger patties is \$6.90, the cost of a pack of 6 buns is \$1.59, and the cost for a pack of 24 slices of cheese is \$4.24. What is the cost to make 3 cheeseburgers? ( A cheeseburger contains one patty, one piece of cheese and one bun) \_\_\_\_\_
11. Jared has a biweekly gross pay of \$1980. His deductions are: union dues \$15.38, pension \$60, CPP \$91.34, EI \$34.25, Federal Tax \$216.80 and Provincial Tax \$142.90. What is his taxable income? \_\_\_\_\_
12. Rachael works for an electronics store and earns a commission on all her sales. If she makes sales totaling \$1450.00 in one week and receives \$174 in commission, what is her rate of commission? \_\_\_\_\_
13. You plan a trip to Egypt. You go to the bank with \$300 Canadian dollars and exchange it for Egyptian pounds. Later in that day, you receive word that the trip is cancelled. You return to the bank and exchange the pounds that you purchased back into Canadian dollars. How much money did you lose due to this transaction? \_\_\_\_\_

Bank Buying Rate	Country	Currency Units	Bank Selling Rate
0.159300	Egypt	Pounds	0.217300

14. Georgina's time card for her job is shown below. She earns \$11.20/hour and a shift premium of \$3.00/hour for hours between 5 pm and 8 am. What is her **gross pay** for the week? \_\_\_\_\_

Day	In	Out	Regular hours	Premium hours
Monday	7:45 am	6:00 pm		
Tuesday	4:15 pm	9:00 pm		
Wednesday	9:30 am	4:00 pm		
Thursday	5:30 am	1:00 pm		
Friday	9:00 am	5:30 pm		

15. In each case, determine the employee's **net pay**. Fill in the information on the provided pay statements. EI = 1.63% x gross CPP = 4.95% x (gross - 3500/#pays)

**a) Jennifer – York Steel - Minto, NB – Welder**

- Pay statement – June 5 to June 19
- Pay is \$20/hour for a regular 37.5 hour week
- Paid biweekly
- Fed Tax = \$147.36
- Prov Tax = \$102.30
- Time-and-a-half overtime pay
- Worked 80 hours between June 5 and June 19
- Union dues - \$400 annually – paid in equal installments each pay
- Pension Fund contribution - \$60 each pay period

**b) Paul – Surplus Furniture Warehouse – Moncton, NB – Furniture Salesman**

- Pay Statement – May 7 to May 14
- Paid weekly - \$10.50/hour
- Contract is for a regular 40-hour week
- Commission is paid at a rate of 4% of all sales
- Fed Tax = \$72.25
- Prov Tax = \$49.30
- Sales for the week total \$10 500
- Pension Fund contribution - \$80 each pay

16. Fred had an unpaid balance on his credit card and he was charged \$3.44 when he paid off the balance after 18 days. The credit card had an interest rate of 19.5% per annum. How much was his unpaid balance? \_\_\_\_\_

17. A deposit of \$1650 is invested at 3% per annum, compounded quarterly, for 5 years. How many interest periods will there be? \_\_\_\_\_

18. Jane earned \$371 on an investment of \$2650 that earned simple interest at a rate of 2.8%. How many years was the investment for? \_\_\_\_\_

19. A \$1350 investment was made at a rate of 2.5% per annum, compounded monthly, for 4 years.

- a) How many interest periods will there be? \_\_\_\_\_
- b) How much will the investment be worth at the end of the 4 years? \_\_\_\_\_
- c) How much interest was earned? \_\_\_\_\_
- d) Would the same investment have earned the same amount of interest if it was compounded semi-annually for 4 years? Explain.

20. Jeff invested \$4300 at 3.1% per annum, compounded quarterly for 6 years. Calculate the final investment value and the interest earned at the end of the 6 years. \_\_\_\_\_, \_\_\_\_\_

21. Maggie is buying a Mac Book and that has following payment options.

Calculate the total cost of each option.

**Option 1:** Pay cash. The \$1399 plus 15% sales tax.

**Option 2:** Use the store's monthly payment plan of 24 monthly payments of \$75 (this includes tax) plus an administration fee of \$55.

**Option 3:** Pay the cash price using a cash advance on his credit card. She would be charged interest at an annual rate of 18.25%, and she expects it would take her 180 days to pay her credit card balance.

**Math 10 GMF - Finance Unit – Exam Review**

**name: Answers**

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- For a certain kind of plaster work, 1.5 m<sup>3</sup> of sand are needed or every 100 m<sup>2</sup> of surface. How much sand will be needed for 450 m<sup>2</sup> of surface?  
**6.75 m<sup>3</sup>**
- Digital Universe is a video game store that made a profit of \$1575 on the sale of 340 games. How much profit would the store expect to make on the sale of 150 games?  
**\$694.85 (no rounding until final answer) OR \$ 694.50 (rounding unit price)**
- Jane plans to buy an Ipod but has waited for it go on sale. The regular price of the iPod is \$169.99 but it has been discounted by 20%. How much will Jane pay for the iPod (tax included) if she buys it in Halifax, Nova Scotia? (15% HST)  
**\$135.99 x tax = \$156.39**
- Claude works on the assembly line at a furniture manufacturing plant. He receives a wage of \$18.40/hour for hours worked Monday to Friday. On the weekend he earns time and a half. Claude works Tuesday to Sunday, for 7 hours a day. Calculate his earnings for the week.  
**Reg = \$515.20 OT = \$386.40 Gross = \$901.60**
- The wholesale price of a snowblower is \$788.95. The markup is 65%. What is the retail price?  
**\$1301.77**
- Lucy wants to make a \$6 profit on every decorated Christmas wreath she makes. If it costs her \$10 to make a wreath, then by what percentage will she mark up the price?  
**60%**
- The retail price of a generator is \$617.40. The wholesale price was \$420. What is the percent markup?  
**47%**
- Calculate the sale price of a Blue Ray player that regularly sells for \$129.00 and is on sale for 40% off.  
**\$77.40**
- The regular price of a bedroom set is \$358.99, but it is on sale for 35% off. What will the customer pay (tax included) if the bedroom set is sold in PEI? (15% HST)  
**Sale price = 233.34          HST = 35.00          Total = \$258.34**
- The cost of a pack of 12 hamburger patties is \$6.90, the cost of a pack of 6 buns is \$1.59, and the cost for a pack of 24 slices of cheese is \$4.24. What is the cost to make 3 cheeseburgers? ( A cheeseburger contains one patty, one piece of cheese and one bun)  
**\$3.05 (no rounding until final answer)          \$3.09 (rounding unit prices)**
- Jared has a biweekly gross pay of \$1980. His deductions are: union dues \$15.38, pension \$60, CPP \$91.34, EI \$34.25, Federal Tax \$216.80 and Provincial Tax \$142.90. What is his taxable income?  
**1980 – 15.38-60 = \$1904.62**
- Rachael works for an electronics store and earns a commission on all her sales. If she makes sales totaling \$1450.00 in one week and receives \$174 in commission, what is her rate of commission?  
**12%**
- You plan a trip to Egypt. You go to the bank with \$300 Canadian dollars and exchange it for Egyptian pounds. Later in that day, you receive word that the trip is cancelled. You return to the bank and exchange the pounds that you purchased back into Canadian dollars. How much money did you lose due to this transaction?  
**\$300 = 1380.58 pounds          1380 pounds = \$219.93          So \$80.07 lost**

Bank Buying Rate	Country	Currency Units	Bank Selling Rate
0.159300	Egypt	Pounds	0.217300

14. Georgina's time card for her job is shown below. She earns \$11.20/hour and a shift premium of \$3.00/hour for hours between 5 pm and 8 am. What is her **gross pay** for the week?

**\$444.75**

Day	In	Out	Regular hours	Premium hours
Monday	7:45 am	6:00 pm	9	1.25
Tuesday	4:15 pm	9:00 pm	0.75	4
Wednesday	9:30 am	4:00 pm	6.5	0
Thursday	5:30 am	1:00 pm	5	2.5
Friday	9:00 am	5:30 pm	8	0.5

15. In each case, determine the employee's **net pay**. Fill in the information on the provided pay statements

a) **Jennifer – York Steel - Minto, NB – Welder**

- Pay statement – June 5 to June 19
- Pay is \$20/hour for a regular 37.5 hour week
- Paid biweekly
- Claim Code 2
- Time-and-a-half overtime pay
- Worked 80 hours between June 5 and June 19
- Union dues - \$400 annually – paid in equal installments
- Pension Fund contribution - \$60 each pay period

a)  
 Regular = \$1500, OT = \$150 Gross = \$1650  
 Taxable = \$1574.62  
 Before Tax Deductions = \$75.38  
 EI = \$26.90  
 CPP = \$75.01  
 Fed Tax = \$147.36  
 Prov Tax = \$102.30  
 Total Deductions = \$426.95  
 NET = \$1223.05

b) **Paul – Surplus Furniture Warehouse – Moncton, NB – Furniture**

- Pay Statement – May 7 to May 14
- Paid weekly - \$10.50/hour
- Contract is for a regular 40-hour week
- Commission is paid at a rate of 4% of all sales
- Claim Code 1
- Sales for the week total \$10 500
- Pension Fund contribution - \$80 each pay

b)  
 Regular = \$420, Comm = \$420 Gross = \$840  
 Taxable = \$760  
 Before Tax Deductions = \$80  
 EI = \$13.69 15.37  
 CPP = \$38.25  
 Fed Tax = \$72.25  
 Prov Tax = \$49.30  
 Total Deductions = \$253.49  
 NET = \$583.15

16. Fred had an unpaid balance on his credit card and he was charged \$3.44 when he paid off the balance after 18 days. The credit card had an interest rate of 19.5% per annum. How much was his unpaid balance?

**\$357.72**

17. A deposit of \$1650 is invested at 3% per annum, compounded quarterly, for 5 years. How many interest periods will there be?

**20 interest periods**

18. Jane earned \$371 on an investment of \$2650 that earned simple interest at a rate of 2.8%. How many years was the investment for?

**5 years**

19. A \$1350 investment was made at a rate of 2.5% per annum, compounded monthly, for 4 years.

e) How many interest periods will there be? **48**

f) How much will the investment be worth at the end of the 4 years? **\$1491.83**

g) How much interest was earned? **\$141.83**

h) Would the same investment have earned the same amount of interest if it was compounded semi-annually for 4 years? Explain. **No it will not be worth the same as interest will not be calculated as often – Final amount would be \$1491.06 (very close though!!).**

20. Jeff invested \$4300 at 3.1% per annum, compounded quarterly for 6 years. Calculate the final investment value and the interest earned at the end of the 6 years.

**\$5175.30, \$875.30**

21. Maggie is buying a Mac Book and that has following payment options.

Calculate the total cost of each option.

**Option 1:** Pay cash. The \$1399 plus 13% sales tax. **\$1580.87**

**Option 2:** Use the store's monthly payment plan of 24 monthly payments of \$75 (this includes tax) plus an administration fee of \$55. **\$1855**

**Option 3:** Pay the cash price using a cash advance on his credit card. She would be charged interest at an annual rate of 18.25%, and she expects it would take her 180 days to pay her credit card balance. **\$1723.15**

