

Student name: _____

MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.

Evaluate $8 - 5 \times 2 - 3$

-5

3

5

-3

15

Evaluate $8 - 4 \times (2 - 3)$

-4

12

5

11

4

Evaluate $18 \div 3 + 8 - 4 \times 2 - 3$

17

25

3

11

4

Evaluate $18 \div 3 + (8 - 4) \times (2 - 3)$

-10

17

-18

2

4

Evaluate $8 - 4 \times (2 - 3)^2$

25

-1

12

17

4

Evaluate $6 - 2 + 3 \times (2 - 3)^2$

7

12

-12

-1

1

Evaluate $\frac{3(2 + 1)^2 + 5^2}{4 - 3^2}$

-7.4

-10.4

-14.8

10.4

7.4

Evaluate $3(8 - 4)^2 \times (2 - 3)^2$

400

-400

48

-48

93

Evaluate $3[4 + (5 + 3)^2]^2$

256

38,416

3600

13,872

576

Evaluate $(2 - 3 \times 4)^2 - 5 \times (5 - 6)^2$

11

125

-21

95

395

Evaluate $\$1200(1 + 0.0625 \times \frac{7}{12})$

\$743.75

\$1725.00

\$700.04

\$1637.50

\$1243.75

Evaluate $\$ 1000\left(1+0.045 \times \frac{17}{12}\right)$

\$1063.75

\$1416.73

\$1765.00

\$1637.50

\$1480.42

Evaluate $\$ 750\left(1-0.0575 \times \frac{150}{365}\right)$

\$749.98

\$732.28

\$308.20

\$572.77

\$767.72

Evaluate $\$ 650\left(1-0.0625 \times \frac{21}{12}\right)$

\$1137.39

\$721.09

\$578.91

\$446.88

\$576.06

Evaluate $\frac{\$1050}{\left(1+\frac{0.065}{12}\right)^3}$

\$1067.16

\$1035.95

\$896.32

\$1033.12

\$1502.05

Evaluate $\frac{\$25,000}{\left(1+\frac{0.07}{12}\right)^4}$

\$25,588.46

\$19,927.38

\$19,072.38

\$24,855.01

\$24,425.08

Evaluate $\frac{\$1500\left(1+0.055\times\frac{3}{12}\right)}{1+0.10\times\frac{9}{12}}$

\$1414.53

\$1843.18

\$348.85

\$454.56

\$1625.58

Evaluate $\frac{\$1750\left(1+\frac{0.11}{4}\right)^3}{1+0.075\times\frac{275}{365}}$

\$1701.95

\$1796.85

\$2265.35

\$1897.86

\$2392.70

$$\text{Evaluate } \$20,000 \left[\frac{\left(1 + \frac{0.05}{2}\right)^4 - 1}{\frac{0.05}{2}} \right]$$

\$172,405.00

\$82,207.63

\$83,050.31

\$41,525.16

\$86,202.50

$$\text{Evaluate } \$675 \left[\frac{\left(1 + \frac{0.065}{4}\right)^6 - 1}{\frac{0.065}{4}} \right]$$

\$2766.53

\$1054.53

\$19,072.06

\$4218.14

\$45,756.60

$$\text{Evaluate } \frac{\$900}{\left[\frac{\left(1 + \frac{0.055}{4}\right)^7 - 1}{\frac{0.055}{4}} \right]}$$

\$493.46

\$27.22

\$900.00

\$84.52

\$123.36

$$\text{Evaluate } \frac{\$2500}{\left[\frac{\left(1 + \frac{0.065}{2}\right)^4 + 1}{\frac{0.065}{2}} \right]}$$

\$43.31

\$38.03

\$86.61

\$83.98

\$48.51

$$\text{Evaluate } \$110 \left[1 - \frac{3}{\left(1 + \frac{0.085}{12}\right)^5} \right] - \frac{\left(1 + \frac{0.085}{12}\right)^4}{\frac{0.085}{12}}$$

-\$404.21

-\$353.78

-\$185.74

-\$208.56

-\$145.22

$$\text{Evaluate } \$1500 \left[1 + \frac{1}{1 - \frac{0.04}{12}} \right] - \frac{\left(1 + \frac{0.04}{12}\right)^3}{\frac{0.04}{12}}$$

\$1489.85

\$2892.41

\$2712.09

\$1177.64

\$1818.11

What amount is 230% of \$450?

\$103,500

\$1.04

\$51.11

\$1035

\$195.65

What amount is 0.04% of \$200,000?

\$8000

\$800

\$8

\$0.80

\$80

4.9% of \$2750 is what amount?

\$134.75

\$13,475

\$2,884.75

\$13.48

\$284.48

What is 0.05% of \$9100?

\$455.00

\$4.55

\$4550.00

\$45.50

\$0.46

What is 13.5% of \$5000?

\$67.50

\$6.75

\$675

\$6,750.00

\$0.68

What is 2500% of \$1625?

\$4,062.50

\$406.25

\$40.63

\$40,625

\$4,062

78% of \$2460 is what amount?

\$151.86

\$269.07

\$26.91

\$19.47

\$1,918.80

24% of \$675 is what amount?

\$162

\$16.88

\$691.20

\$123.12

\$389.88

$\frac{7}{8}\%$ of \$10,000 is what amount?

\$87.50

\$8.75

\$87,500

\$8,750

\$875

$\frac{3}{4}\%$ of \$6000 is what amount?

\$0.45

\$45.00

\$4.50

\$450.00

\$4,500.00

Nitin earns \$48,000 per year. Determine his gross earnings for each pay period if he is paid biweekly. Assume there are 52 weeks in the year.

\$2000

\$4000

\$923.08

\$1846.15

\$1923.08

Nitin earns \$48,000 per year for a forty-hour work week. Determine his hourly rate of pay if he is paid biweekly. Assume there are 52 weeks in the year.

\$250.00

\$24.04

\$46.50

\$50.00

\$23.08

Nitin is paid a base salary of \$200 per week and commission at the rate of 3% for sales over \$5000, 4% if his sales are over \$8000, and 5% if sales are over \$15,000. How much will Nitin earn in a week in which his sales are \$20,000?

\$1200

\$1000

\$800

\$600

\$200

Nitin is paid a base salary of \$300 per week and commission at the rate of 2.5% for sales over \$5000, 4% if his sales are over \$10,000, and 4.5% if sales are over \$25,000. How much will Nitin earn in a week in which his sales are \$20,000?

\$800

\$825

\$900

\$1200

\$1125

Nitin is paid on a graduated commission scale. His base salary is \$250 per week and he receives commission at the rate of 2.5% for the first \$5000 of sales in a week, 4% on the next \$10,000, and 4.5% on all further sales. How much will Nitin earn in a week in which his sales are \$30,000?

\$1200

\$1350

\$1450

\$1600

\$1000

Nitin is paid on a graduated commission scale. His base salary is \$1500 per month and he receives commission at the rate of 2% for the first \$10,000 of sales in a month, 3% on the next \$20,000, and 4.5% on all further sales. How much will Nitin earn in a month in which his sales are \$60,000?

\$2150

\$2250

\$3750

\$3650

\$2500

A sales representative is paid the greater of \$950 or 8% of sales. At what volume of sales will he start to earn more from the commission-based compensation?

\$9500

\$1026

\$1875

\$1187.50

\$11,875

A sales representative is paid the greater of \$1275 per week or 9% of sales. At what volume of sales will she start to earn more from the commission-based compensation?

\$14,166.67

\$1389.75

\$2295

\$2422.50

\$12,750

Nitin is paid on a graduated commission scale. He receives commission at the rate of 2.5% for the first \$5000 of sales in a week, 4% on the next \$10,000, and 4.5% on all further sales. What is Nitin's average rate of commission in a week in which his sales are \$30,000?

3.67%

4%

3.33%

3.75%

4.25%

Nitin is paid on a graduated commission scale. He receives commission at the rate of 2% for the first \$10,000 of sales in a month, 3% on the next \$20,000, and 4.5% on all further sales. What is Nitin's average rate of commission in a month in which his sales are \$60,000?

3.167%

3.417%

3.583%

4.122%

3.83%

Safa is paid a base salary of \$1500 per month and a commission of 6% on all sales over \$75,000. Last month, Safa's gross salary was \$4440. What were her sales for the month?

\$49,000

\$75,266.40

\$149,000

\$124,000

\$100,000

Isaac earns a base salary of \$1250 per month and a graduated commission of 0.4% on the first \$100,000 of sales, and 0.5% on sales over \$100,000. Last month, Isaac's gross salary was \$2025. What were his sales for the month?

- \$75,000
- \$200,000
- \$312,500
- \$250,000
- \$175,000

Elita took six courses last semester. Her grades and course credits are as follows:
Use the Letter Grade to Grade Point Value conversion table below to calculate her grade point average for the semester.

Course	Grade	Credits
Accounting	B+	4
Business Mathematics	A	4
Human Resources	B	3
Economics	C+	4
Computer Applications	C	2
Marketing	D	3
Letter Grade	Grade Points	
A+	4.0	
A	4.0	
B+	3.5	
B	3.0	
C+	2.5	
C	2.0	
D	1.0	
F	0.0	

- 2.8
- 2.7
- 3.3
- 3.0

3.5

Jayelle took six courses last semester. Her grades and course credits are as follows:

Use the Letter Grade to Grade Point Value conversion table below to calculate her grade point average for the semester.

Course	Grade	Credits
Finance	B+	4
Statistics	C	2
General Education	B+	3
Macro Economics	B	3
Cost Accounting	B	4
Computer Applications	A+	2
Letter Grade	Grade Points	
A+	4.0	
A	4.0	
B+	3.5	
B	3.0	
C+	2.5	
C	2.0	
D	1.0	
F	0.0	

3.75

3.2

3.0

2.6

2.8

Kuldip invested \$5000 at 6%, \$10,000 at 5.5%, and \$20,000 at 4%. What is the average rate of interest earned by her investments?

5.2%

5%

4.7%

5.25%

4.75%

Carlos invested \$10,000 at 7%, \$20,000 at 6.5%, and \$50,000 at 5%. What is the average rate of interest earned by his investments?

6.2%

5.5%

5.8%

5.6%

6.3%

A customer has a first mortgage of \$100,000 at 5.5% and a second mortgage of \$50,000 at 7.8%. What is the weighted average rate of mortgage that the customer pays?

6.7%

7%

5.9%

6.5%

6.3%

A client has a first mortgage of \$175,000 at 5.8% and a second mortgage of \$25,000 at 6.7%. What is the weighted average rate of mortgage that the client pays?

5.9%

6.3%

6.5%

6%

6.2%

Sonal bought a coat for \$198.88, which included 8% PST and 5% GST. What was the selling price of the coat?

\$175.38

\$176.00

\$173.03

\$182.97

\$179.99

Sonal bought a new sound system for her car costing \$604. Sonal lives in Calgary, and so the price included 5% GST. What was the selling price of the new sound system?

\$573.17

\$574.58

\$575.24

\$616.31

\$570.66

Calculate the PST on a sweater costing \$595 in Manitoba, Alberta, and Quebec.

Province	GST rate (%)	HST rate (%)	PST rate (%)
Alberta	5	-	-
British Columbia	5	-	7
Manitoba	5	-	7
New Brunswick	-	13	-
Newfoundland and Labrador	-	13	-
Nova Scotia	-	15	-
Ontario	-	13	-
Prince Edward Island	-	14	-
Quebec	5	-	9.975
Saskatchewan	5	-	5

\$4.77; \$0.00; \$5.98

\$44.80; \$44.77; \$45.50

\$44.80; \$44.50; \$45.77

\$41.65; \$0.00; \$59.35

\$47.77; \$0.00; \$42.20

Calculate the PST on a jacket costing \$850 in Alberta, Manitoba, and Saskatchewan.

Province	GST rate (%)	HST rate (%)	PST rate (%)
Alberta	5	-	-
British Columbia	5	-	7
Manitoba	5	-	7
New Brunswick	-	13	-
Newfoundland and Labrador	-	13	-
Nova Scotia	-	15	-
Ontario	-	13	-
Prince Edward Island	-	14	-
Quebec	5	-	9.75
Saskatchewan	5	-	5

\$0.00; \$5.71; \$6.27

\$6.27; \$6.27; \$4.48

\$5.37; \$7.16; \$5.27

\$6.27; \$6.27; \$5.37

\$0.00; \$59.50; \$42.50

M Studios (Calgary) had retail sales of \$166,425, including GST, for the last quarter. In the same period M Studios purchased \$45,000 worth of supplies and paid \$75,000 for store renovations, plus the GST on these goods and services. What GST must be remitted by M Studios for the last quarter? (Assume GST = 5%)

\$1925

\$2321.25

\$14,323.26

\$6071.25

\$4573.26

M Studios (Ontario) had retail sales of \$288,528.55, including HST, for the last quarter. In the same period M Studios purchased \$250,000 worth of supplies and paid the GST on these goods. What GST must be remitted by M Studios for the last quarter? (Assume 8% PST and 5% GST)

\$50.99

\$266.75

\$1926.43

\$426.80

\$5008.71

A homeowner's tax statement lists the following mill rates for various municipal services:
What is the property tax on a house assessed at \$300,000?

Service	Mill Rate
Schools	6.75
City	7.21
Water	0.92
Sewers	0.87

\$4464

\$4449

\$4725

\$2562

\$2700

A homeowner's tax statement lists the following mill rates for various municipal services:
The homeowner paid \$3937.50 in property taxes last year. What is the assessed value of his property?

Service	Mill Rate
Schools	6.75
City	7.21
Water	0.92
Sewers	0.87

\$264,617

\$265,509

\$461,066

\$250,000

\$437,500

Evaluate $(8 - 5 \div 2) \div (12 \times 3 - 6)$

5.4545

0.05

-0.1528

6.5454

0.1833

Evaluate 0.5×0.001

0.0005

0.005

$\frac{51}{10,000}$

$\frac{3}{2000}$

5000

Evaluate $\frac{\frac{6}{7} + \frac{2}{3}}{\frac{3}{7}}$

24.89

3.556

4.190

6.429

5.071

Evaluate $(8 \div 5 - 2) \div (12 - 2 - 4)$

2.4

-0.067

-2.4

0.444

-1.0

Evaluate $-14(2) + 16 \div 32 + 4$

-22

-24.5

-28.4

-24.4

-23.5

Evaluate $(25 - 9) \div (6 - 2)^2$

256

1

8

4

0.5

Evaluate $\frac{5(6-14)}{200-0.25 \times \frac{3000}{15}}$

0.1267

0.052

0.0867

0.076

-0.07667

Evaluate $16 - 4(1 - 0.3 \div \frac{435}{650})$

6.621

17.379

13.793

10.207

12.803

Express as a percent: $\frac{40.3}{80}$

50.375%

0.0050375%

0.50375%

5.0375%

503.75%

A piece of property valued at \$2,000,000 is assessed for property tax purposes at 70% of its value. If the property tax is \$20.00 on each \$1000.00 of assessed value, what is the amount of tax?

\$23,700.00

\$4000.00

\$28,000.00

\$12,000.00

\$40,000.00

Calculate the price, including both GST and PST, that an individual will pay for a car sold for \$26,995.00 in Manitoba. (Assume GST = 5% and PST = 8%)

\$28,334.75

\$30,504.35

\$29,154.60

\$30,234.40

\$26,995.00

If the mill rate increases by 0.25 mills, what will be the dollar increase in property taxes on a house assessed at \$380,000?

\$950.00

\$0.95

\$9500

\$95.00

\$9.50

Fred has an annual salary of \$40,000.00. He is paid semi-monthly and his regular workweek is 40 hours. What is his regular salary per pay period?

\$1538.46

\$1458.33

\$3076.92

\$1666.67

\$3333.33

A class of 25 students wrote a term test. The results out of 30 marks are as follows:
What was the average score on the test?

Score	10	15	20	25	30
Number of Students	2	3	10	6	4

20

25

22

21.4

17.5

An investor purchased shares of Acme Company as follows: 500 shares @ \$10 per share, 10,000 shares @ \$6.00 per share, and 1000 shares at \$4.00 per share. What is the investor's weighted average cost per share?

\$7.00

\$6.00

\$6.67

\$23,000

\$6.50

A municipality requires an extra \$3,000,000 for its operating budget next year. The current mill rate is 8.3573 and the assessed values of properties in the municipality remains constant at \$8.58 billion.

Calculate next year's mill rate.

8.3497

8.3923

11.8538

9.7684

8.7070

A municipality requires an extra \$3,000,000 for its operating budget next year. The current mill rate is 8.3573 and the assessed values of properties in the municipality remains constant at \$8.58 billion.

If the total of all assessed values rises by 5% over the current assessment, at what value must next year's mill rate be set?

8.6903

8.2923

7.9923

9.7684

8.3906

Fred is paid an annual salary of \$45,800 on a biweekly schedule for a 40-hour work week. Assume there are 52 weeks in the year.

What is his gross salary per pay period?

\$1908.33

\$1815.93

\$1616.18

\$1755.51

\$1761.54

Fred is paid an annual salary of \$45,800 on a biweekly schedule for a 40-hour work week. Assume there are 52 weeks in the year.

What is his hourly pay rate?

\$44.44

\$43.89

\$47.71

\$22.02

\$38.76

Fred is paid an annual salary of \$45,800 on a biweekly schedule for a 40-hour work week. Assume there are 52 weeks in the year.

What is his total remuneration for a two-week period in which he worked 4.5 hours overtime at time-and-a-half?

\$1910.18

\$2230.36

\$1858.23

\$1953.02

\$2051.75

Store A sold 30 units at \$1.25 per unit. Store B sold 60 units at \$1.95 per unit. Store C sold 9 units at \$1.50 per unit.

Ignoring the quantities sold, what was the average unit selling price for the three stores?

\$0.33

\$1.57

\$155.10

\$51.70

\$1.70

Store A sold 30 units at \$1.25 per unit. Store B sold 60 units at \$1.95 per unit. Store C sold 9 units at \$1.50 per unit.

Recognizing the quantities sold, what was the weighted average selling price per unit?

\$0.33

\$1.57

\$155.10

\$51.70

\$1.70

In the three-month quarter ending in March, your store had sales of \$98,200, not including taxes, from its clothing and shoes. If clothing accounted for 62% of sales and you collected 5% GST on these sales, how much GST was collected on sales from clothing?

\$3,044.20

\$3,088.20

\$3,022.20

\$3,048.20

\$3,084.20

In the three-month quarter ending in March, your store had sales of \$98,200, not including taxes, from its clothing and shoes. If clothing accounted for 62% of sales and you collected 13% HST on these sales, how much HST was collected on sales from clothing?

\$7,928.92

\$7,914.92

\$7,214.92

\$7,514.92

\$7,714.92

At a fundraising event, the local charity raised 32% of their sales in chocolate chip cookies, 40% of their sales in oatmeal raisin cookies and the balance in white macadamia cookies. If the charity sold 120 chocolate chip cookies, how many white macadamia cookies did they sell?

95 white macadamia cookies

110 white macadamia cookies

105 white macadamia cookies

125 white macadamia cookies

80 white macadamia cookies

Your company is switching you from an employee to working on a contract basis. Your current compensation is an hourly rate of \$42.50 for a 37.5-hour workweek and will switch to an amount to be paid monthly. What should you be paid every month in order for your annual earnings to remain the same? Assume the same dollar amount per month, regardless of the number of days in a month. Assume 52 weeks per year.

\$7,006.25

\$6,706.25

\$6,806.25

\$6,096.25

\$6,906.25

Your regular hourly rate of pay is \$15.86, and you are paid double time for all work on weekends and for any time over forty hours per week (Monday to Friday). Calculate your gross earnings for a week in which you work 4.5 hours (Saturday), 0 hours (Sunday) and forty-three hours Monday through Friday.

\$872.30

\$898.30

\$854.30

\$827.30

\$843.30

A person is offered a job working in a meat factory preparing chickens for packaging. The job offer is to be paid \$15.50 per hour plus a piecework rate that depends on the number of chickens processed. A flat fee of \$0.25 per chicken is paid plus an additional \$0.25 for any chickens processed over fifty per hour in an eight-hour shift. (Assume five days per week) What is their total pay for a regular workweek in which their output on successive days is 48, 54, 46, 56, and 43 chickens?

\$648.25

\$684.25

\$644.25

\$644.25

\$864.25

In your tax-free savings account (TFSA) account, you purchased 10,000 shares of ATH at a cost of \$1.75. As the price dropped, you purchased another 10,000 shares at \$1.22 each. You purchased another 5,000 shares when the price dropped again, to \$.80. By averaging down, what is your average cost per share?

\$1.55

\$1.66

\$1.35

\$1.53

\$1.72

A car salesperson's sales for the month are as follows: four days with no sales, ten days with one sale, twelve days with two sales, three days with three sales and two days with four sales. Calculate the average daily sales?

1.51

1.24

1.98

1.65

1.82

A salesperson will receive a graduated commission that pays them 2.4% on the first \$100,000 in sales, 3.2% on the next \$200,000, and 4.7% on all additional sales in a month. What is the average commission rate on sales for a month totaling \$600,000?

2.82%

1.82%

3.52%

2.52%

3.82%

You spent the summer touring Western Canadian cities. You spent four nights in a hotel in Vancouver at \$175 a night, three nights in a Banff hotel at \$280 a night, two nights in Calgary for \$139, two nights in Saskatoon for \$129 and two nights in Winnipeg for \$99 a night. What was the weighted average cost of the hotel rooms for the entire trip?

\$174.92

\$147.92

\$179.92

\$169.92

\$152.92

You just purchased a couch at a "Pay No Sales Tax" event. The final price of the couch was \$799. If PST is 7% and GST is 5%, how much must the company allocate for both taxes?

GST \$49.94

PST \$35.67

GST \$35.67

PST \$49.94

GST \$53.67

PST \$49.94

GST \$35.67

PST \$51.94

GST \$25.67

PST \$39.94

Your company advertises all prices on the menu board as a final price, including HST of 13%. A customer asks what the actual cost of a cup of coffee is if it is listed on the menu board for \$1.85?

\$1.46

\$1.96

\$1.64

\$3.28

\$2.64

You are looking at purchasing a house with an assessed value of \$197,000. What will be the annual property taxes if the mill rate is 14.5437?

\$2,915.11

\$2,725.11

\$2,015.11

\$2,865.11

\$2,245.11

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Evaluate the following: $20 - 4 \times 2 - 8$

Evaluate the following: $18 \div 3 + 6 \times 2$

Evaluate the following: $(20 - 4) \times 2 - 8$

Evaluate the following: $18 \div (3 + 6) \times 2$

Evaluate the following: $20 - (4 \times 2 - 8)$

Evaluate the following: $(18 \div 3 + 6) \times 2$

Evaluate the following: $54 - 36 \div 4 + 2^2$

Evaluate the following: $(5 + 3)^2 - 3^2 \div 9 + 3$

Evaluate the following: $(54 - 36) \div (4 + 2)^2$

Evaluate the following: $5 + (3^2 - 3)^2 \div (9 + 3)$

Evaluate the following: $\frac{8^2 \cdot 4^2}{(4 \cdot 2)^3}$

Evaluate the following: $\frac{(8 \cdot 4)^2}{4 \cdot 2^3}$

Evaluate the following: $3(6 + 4)^2 - 5(17 - 20)^2$

Evaluate the following: $(4 \times 3 - 2)^2 \div (4 - 3 \times 2^2)$

Evaluate the following: $[(20 + 8 \times 5) - 7 \times (-3)] \div 9$

Evaluate the following: $5[19 + (5^2 - 16)^2]^2$

Evaluate the following accurate to the nearest cent: $\$ 100\left(1 + 0.06 \times \frac{45}{365}\right)$

Evaluate the following accurate to the nearest cent: $\frac{\$200}{1 + 0.09 \times \frac{4}{12}}$

Evaluate the following accurate to the nearest cent: $\frac{\$500}{(1 + 0.05)^2}$

Evaluate the following accurate to the nearest cent: $\$1000(1 + 0.02)^3$

Evaluate the following accurate to the nearest cent: $\$ 100\left[\frac{(1 + 0.04)^2 - 1}{0.04}\right]$

$$\$ 300 \left[\frac{1 - \frac{1}{(1+0.03)^2}}{0.03} \right]$$

Evaluate the following accurate to the nearest cent:

If you want four-figure accuracy in your answer, what minimum number of figures must be retained in the values used in the calculations? a) 4 B) 5 C) 6

For a final result of approximately \$7000 to be accurate to the nearest cent, what minimum number of figures must be retained in the values used in the calculations? a) 6 B) 7 C) 8

For a final result of approximately 5 million dollars to be accurate to the nearest dollar, what minimum number of figures must be retained in the values used in the calculations? a) 6 B) 7 C) 8

If an interest rate (which could be greater than 10%) is to be calculated to the nearest 0.01%, what minimum number of figures must be retained in the values used in the calculations? a) 3 B) 4 C) 5

The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{7}{8}$

The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{65}{104}$

The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{47}{20}$

The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $-\frac{9}{16}$

The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{-35}{25}$

The following mixed number has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $1\frac{7}{25}$

The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{25}{1000}$

The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{1000}{25}$

The following mixed number has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $2\frac{2}{100}$

The following mixed number has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $-1\frac{11}{32}$

The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{37.5}{50}$

The following fraction has a terminating decimal equivalent form. Express its decimal and percent equivalent forms to five-figure accuracy: $\frac{225}{-12}$

The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{5}{6}$

The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $-\frac{8}{3}$

The following mixed number has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $7\frac{7}{9}$

The following mixed number has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $1\frac{1}{11}$

The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{10}{9}$

The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{-4}{900}$

The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $-\frac{7}{270}$

The following fraction has a repeating decimal equivalent form. Express the decimal and percent equivalent form in the repeating decimal notation. Show just the minimum number of decimal places needed to display the repeating digit or group of digits. $\frac{37}{27}$

Round the following to four-figure accuracy: 11.3845

Round the following to four-figure accuracy: 9.6455

Round the following to four-figure accuracy: 0.5545454

Round the following to four-figure accuracy: 1000.49

Round the following to four-figure accuracy: 1.0023456

Round the following to four-figure accuracy: 0.030405

Round the following to four-figure accuracy: 40.09515

Round the following to four-figure accuracy: 0.0090909

Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{1}{6}$

Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{7}{6}$

Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{1}{60}$

Convert the following mixed number to its decimal equivalent and percent equivalent values, rounded to five figures: $2\frac{5}{9}$

Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{250}{365}$

Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{15}{365}$

Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{0.11}{12}$

Convert the following fraction to its decimal equivalent and percent equivalent values, rounded to five figures: $\frac{0.095}{12}$

Evaluate the following accurate to the nearest cent: $\$ 92(1 + 0.095 \times \frac{112}{365})$

Evaluate the following accurate to the nearest cent: $\$ 100(1 + 0.11 \times \frac{5}{12})$

Evaluate the following accurate to the nearest cent: $\$ 454.76(1 - 0.105 \times \frac{11}{12})$

Evaluate the following accurate to the nearest cent: $\frac{\$790.84}{1 + 0.13 \times \frac{311}{365}}$

Evaluate the following accurate to the nearest cent: $\frac{\$3490}{1 + 0.125 \times \frac{91}{365}}$

Evaluate the following accurate to the nearest cent: $\frac{\$10,000}{1 - 0.10 \times \frac{182}{365}}$

Evaluate the following accurate to the nearest cent: $\$650 \left(1 + \frac{0.105}{2}\right)^2$

Evaluate the following accurate to the nearest cent: $\$950.75 \left(1 - \frac{0.095}{4}\right)^2$

Evaluate the following accurate to the nearest cent: $\frac{\$15,400}{\left(1 + \frac{0.13}{12}\right)^6}$

Evaluate the following accurate to the nearest cent: $\frac{\$550}{\left(1 + \frac{0.115}{2}\right)^4}$

What is $33\frac{1}{3}\%$ of \$1527?

What is 2.75% of \$2.75?

What amount is 250% of \$25?

0.025% of \$200 is what amount?

How much is $\frac{1}{2}\%$ of \$30?

Bethany and Irwin estimate their total cost for a vacation in Cuba to be \$14,775. If 53% of this cost is for flights and accommodations and 42% is for meals, how much money will they be able to spend on entertainment?

In the month of July, a convenience store had total sales of \$102,300 from its gas pumps and other in-store products. If HST is 13% of sales, how much HST was collected on the in-store products if these sales represent 36% of total sales?

In a basketball game, the Langara College Falcons scored 54.54% of 33 shots from the 2-point zone, 46.6% of 15 attempts from the 3-point distance, and 79.3% of 29 free throws (1 point each). How many points did the Falcons score?

Evaluate the following accurate to the nearest cent:
$$\frac{\$6600 \left(1 + 0.085 \times \frac{153}{365} \right)}{1 + 0.125 \times \frac{82}{365}}$$

Evaluate the following accurate to the nearest cent:
$$\frac{\$780 \left(1 + \frac{0.0825}{2} \right)^5}{\left(1 + \frac{0.10}{12} \right)^8}$$

Evaluate the following accurate to the nearest cent:
$$\$1000 \left[\frac{\left(1 + \frac{0.09}{12} \right)^7 - 1}{\frac{0.09}{12}} \right]$$

Evaluate the following accurate to the nearest cent:

$$\frac{\$350}{\frac{0.0975}{12}} \left[1 - \frac{1}{\left(1 + \frac{0.0975}{12}\right)^5} \right]$$

Evaluate the following accurate to the nearest cent:

$$\frac{\$9500}{\left(\frac{\left(1 + \frac{0.075}{4}\right)^5 - 1}{\frac{0.075}{4}} \right)}$$

Evaluate the following accurate to the nearest cent:

$$\$45 \left[\frac{1 - \frac{1}{\left(1 + \frac{0.0837}{2}\right)^4}}{\frac{0.0837}{2}} \right] + \frac{\$1000}{\left(1 + \frac{0.0837}{2}\right)^4}$$

The Calgary Flames hockey team announced that its season's ticket sales represent 67.50% of the Scotiabank Saddledome's seating capacity of 19,289 seats. Rounded to the nearest 100, how many seats were not sold to season's ticket holders?

The Royal Canadian Mint sells one troy ounce (31.16 grams) platinum collector coins of 95% purity. How many milligrams of impurities are in a single coin?

Stan is a real estate salesperson. He receives 60% of the 4.8% commission that the real estate agency charges on sales. If his sales for the past year were \$5,225,000, what was the dollar value of his commission?

The maximum amount an individual can contribute to their Registered Retirement Savings Plan (RRSP) for a year is set from time to time by the Regulations of the Income Tax Act. For the year 2022, the maximum contribution was the lesser of \$29,210 or 18% of the individual's "earned income" during 2021. What was the maximum RRSP amount that could be contributed in 2022 based on an income of \$128,500 in 2021?

Aletta's annual salary of \$58,800 is paid weekly. She is paid at time and a half for any overtime beyond her regular workweek of 35 hours. What is her gross pay for a week in which she works 39 hours? Assume there are 52 weeks in a year.

Lucille receives an annual salary of \$37,500 based on a 37.5-hour workweek. What are her gross earnings for a two-week pay period in which she works 9 hours of overtime at 1½ times her regular rate of pay? Assume there are 52 weeks in a year.

Hasad is paid an annual salary of \$54,600 based on a 40-hour workweek. What is his gross pay for a biweekly pay period if he works 43 hours in the first week and 46.5 hours in the second week? Overtime is paid at time and a half. Assume there are exactly 52 weeks in a year.

Ross's compensation is to be changed from an hourly rate of \$31.50 for a 40-hour week to a salary paid semimonthly. What should he be paid semimonthly in order for his annual earnings to remain the same?

Allison's regular hourly rate of pay is \$17.70. She is paid time and a half for all work on weekends and for any time over 7.5 hours on weekdays. Calculate her gross earnings for a week in which she works 4.5, 0, 7.5, 8.5, 6, 6, and 9 hours on Saturday to Friday, respectively.

Sam is paid \$34.50 per hour as a power plant engineer. He is paid $1\frac{1}{2}$ times the regular rate for all time exceeding 8 hours in a day or 40 hours in a week. Statutory holidays worked are paid at double time (in addition to holiday pay). What were his gross earnings for a week in which he clocked 8, 9.5, 8, 8, 10, 0, and 8 hours on Saturday to Friday, respectively, where Monday was a statutory holiday?

Mary sews for a clothing manufacturer. She is paid \$7.50 per hour plus a piece rate that depends on the type of garment in production. The current production run is men's shirts, for which she is paid \$3.00 for each unit exceeding her quota of 20 shirts in an 8-hour shift. What will be her total pay for a regular workweek in which her output on successive days was 24, 26, 27, 28, and 30 shirts?

Herb packs fish in 500-g cans on a processing line. He is paid \$8.25 per hour plus \$0.18 per kilogram for production in excess of 500 kg in a 7.5-hour shift. How much will he earn per day if he packs 250 cans per hour?

Svetlana is an independent insurance broker placing various clients with any of several insurance companies. On homeowner insurance policies, each month she receives: \$20 for each renewal of an existing policy; \$35 for each policy placed with a new client; and 5.5% of the annual premiums on all policies (new and renewed) written in the month. In October, she placed 37 new-client policies representing \$14,375 in annual premiums and 126 policy renewals representing \$47,880 in annual premiums. What amount did Svetlana earn in October?

Hillary sells cosmetics from her part-time home-based business. She receives a straight commission of 21% from her supplier. At the year-end, she also receives a 7% bonus on sales exceeding her annual quota of \$100,000. What will her gross annual earnings be for a year in which her average monthly sales are \$11,000?

Manfred is considering job offers of the same type of sales position from two retailers with similar product lines. Supreme Audio & Video is offering a base salary of \$2000 per month plus a 4% commission rate on sales. Buy-Right Electronics will pay a base salary of \$1500 per month plus commission rates of 3% on the first \$25,000 of sales and 6% on additional sales in a month. Based on past experience in similar sales positions, Manfred is confident he can attain average

monthly sales of \$55,000. At this level of sales, what would be his average gross earnings per month from each retailer?

A shoe salesman is paid the greater of \$600 per week or 11% of sales. a) What will be his earnings for a week in which sales are \$5636? b) At what volume of sales per week will he start to earn more from the commission based compensation?

Tom sells mutual funds on a graduated commission structure. He receives 3.3% on the first \$50,000 of sales in a month, 4.4% on the next \$50,000, and 5.5% on all further sales. What are his gross earnings for a month in which he sells \$140,000 worth of mutual funds?

Sharon is a manufacturer's representative selling office furniture directly to businesses. She receives a monthly salary of \$2000 plus a 2.2% commission on sales exceeding her quota of \$150,000 per month. a) What are her earnings for a month in which she has \$227,000 in sales? b) If her average monthly sales are \$235,000, what straight commission rate would generate the same average monthly earnings as her current basis of remuneration? (Round to the nearest 0.01%)

Julio is paid on a graduated commission scale of 5% on the first \$20,000 of sales in a month, 7.5% on the next \$20,000, and 10% on all additional sales. a) What will he be paid for a month in which his sales are \$54,880? b) What single commission rate on all sales would result in the same earnings for the month? (Round to the nearest 0.01%)

Karen works in a retail computer store. She receives a weekly base salary of \$300 plus a commission of 3% of sales exceeding her quota of \$20,000 per week. What were her sales for a week in which she earned \$630.38?

Jason's gross pay for August was \$3296.97 on sales totalling \$15142. If his base salary is \$1500 per month, what is his rate of commission on sales exceeding his monthly quota of \$100,000? (Round to the nearest 0.01%)

Daniella's gross monthly earnings are based on commission rates of 4% of the first \$40,000 of sales, 5% of the next \$50,000, and 6% of all additional sales for the month. What was her sales total for a month in which she was paid \$5350?

Trevor earns a base monthly salary of \$2000 plus a commission of 3% on sales exceeding his monthly quota of \$25,000. He receives a further 3% bonus on sales in excess of \$50,000. What must his sales be in order to gross \$4000 per month?

In what circumstance should you calculate a weighted average instead of a simple average?

In what circumstances will the weighted average be equal to the simple average?

How must you allocate your money among a number of investments so that your portfolio's overall rate of return will be the same as the simple average of the rates of return on individual investments?

A survey of 254 randomly chosen residences in a city revealed that 4 had four television sets, 22 had three sets, 83 had two sets, 140 had one set, and 5 had no TV set at all. Based on the survey, what would you estimate to be the average number of TV sets per household? (Round to 2 decimal places)

An investor accumulated 1800 shares of Corel Corporation over a period of several months. She bought 1000 shares at \$15.63, 500 shares at \$19.00, and 300 shares at \$21.75. What was her average cost per share? (Note: Investors who purchase shares in the same company at more than one price must eventually do this calculation. Tax rules require that the capital gain or loss on the sale of any of the shares be calculated using the weighted-average price paid for all of the shares rather than the particular price paid for the shares actually sold.)

A hockey goalie's "goals against average" (GAA) is the average number of goals scored against them per (complete) game. In their first 20 games in goal, the goalie had one shutout, two 1-goal games, three 2-goal games, four 3-goal games, seven 4-goal games, two 6-goal games, and one 10-goal disaster. Calculate their GAA.

Serge's graduated commission scale pays him 3% on his first \$30,000 in sales, 4% on the next \$20,000, and 6% on all additional sales in a month. What will be his average commission rate on sales for a month totalling: a) \$60,000? b) \$100,000?

The RBC Royal Bank offers an "add-on option" on fixed-rate mortgages. The option allows the customer to borrow additional funds partway through the term of the mortgage. The interest rate charged on the combined mortgage debt becomes the weighted average of the old rate on the former balance and the current competitive rate on new mortgage financing. Suppose Herschel and Julie had a mortgage balance of \$37,500 at 8%, when they borrowed another \$20,000 at 7%. What interest rate will they be charged by the RBC Royal Bank on the new consolidated balance? (Round to the nearest 0.01%)

Margot's grades and course credits in her first semester at college are listed below:
Using the table below for converting Letter Grades to Grade Point Values, calculate Margot's grade point average for the semester.

Grade	C+	B-	B+	C-	B	C
Credits	5	3	4	2	3	4
Letter Grade			Grade Points			
A			4.0			
A-			3.7			
B+			3.3			
B			3.0			
B-			2.7			
C+			2.3			
C			2.0			
C-			1.7			
D			1.0			

The distribution of scores obtained by 30 students on a quiz marked out of 10 is listed below:
What was the average score on the test?

Score	10	9	8	7	6	5	4	3	2	1
Number of Students	2	6	9	7	3	2	0	1	0	0

Alihan's transcript shows the following academic record for four semesters of part-time college studies. Calculate his cumulative GPA at the end of his fourth semester.

Semester	Credits	GPA
I	6	3.5
II	9	3.0
III	12	2.75
IV	7.5	3.2

The "age" of an account receivable is the length of time that it has been outstanding. At the end of October, a firm has \$12,570 in receivables that are 30 days "old," \$6,850 that are 60 days "old," and \$1325 that are 90 days "old. " What is the average "age" of its accounts receivable at the end of October? (Round to 2 decimal places)

One year ago, Sook-Yin allocated the funds in her portfolio among five securities in the proportions listed below. The rate of (total) return on each security for the year is given in the third column of the table.

Calculate the weighted rate of return for the entire portfolio. (Round to the nearest 0.01%)

Security	Portion Invested (%)	Rate of Return for the year (%)
Company A Shares	15	14
Province B Bonds	20	10
Company C Shares	10	-13
Units in Fund D	35	12
Company E Shares	20	27

One of the methods permitted by Generally Accepted Accounting Principles for reporting the value of a firm's inventory is weighted-average inventory pricing. The Boswell Corporation began its fiscal year with an inventory of 156 units valued at \$10.55 per unit. During the year it made the purchases listed in the following table:

At the end of the year, 239 units remained in inventory. Determine: a) The weighted-average cost of the units purchased during the year. b) The weighted-average cost of the beginning inventory and all units purchased during the year. c) The value of the ending inventory based on the weighted-average cost calculated in part b.

Date	Units Purchased	Unit Cost (\$)
February 10	300	10.86
June 3	1000	10.47
August 23	500	10.97

Suppose a group of consumers spends 30% of its disposable income on food, 20% on clothing, and 50% on rent. If over the course of a year the price of food rose 10%, the price of clothing dropped 5%, and rent rose 15%, what was the average price increase experienced by these consumers? (Round to the nearest 0.01%)

The balance on Nucorp's revolving loan began the month at \$35,000. On the eighth of the month another \$10,000 was borrowed. Nucorp was able to repay \$20,000 on the 25th of the 31-day month. What was the average balance on the loan during the month? (Use each day's closing balance as the loan balance for the day.)

A seasonal manufacturing operation began the calendar year with 14 employees. During the year, employees were taken on or laid off on various dates as presented in the table below: What was the average number of employees on the payroll during the calendar year? (Assume that each month has the same length.) (Round to 1 decimal place)

Date	Employee Changes
April 1	7 hired
May 1	8 hired
June 1	11 hired
Sept. 1	6 laid off
Oct. 1	14 laid off

Marcel must temporarily invest extra money in his retail business every fall to purchase additional inventory for the Christmas season. On September 1 he already had a total of \$57,000 invested in his business. Subsequently, he invested or withdrew cash on various dates as shown in the following table:

What was the average cumulative investment in the business during the period from September 1 to August 31? (Assume that each month has the same length.)

Date	Additional injection or withdrawal
Oct. 1	\$15,000 injection
Nov. 1	\$27,000 injection
Feb. 1	\$23,000 withdrawal
March 1	\$13,000 withdrawal
May 1	\$6,000 withdrawal

When a company calculates its earnings per common share for its financial statements, it uses the weighted-average number of common shares outstanding during the year. Enertec Corp. began its fiscal year (January 1 to December 31) with 5 million common shares outstanding. Additional common shares were issued during the year as indicated in the following table:

What was average number of common shares outstanding during the year? (Assume that each month has the same length.)

Date	Event	Additional Shares Issued
March 1	New public offering	1,000,000
June 1	Employees and officers exercise stock options	500,000
Nov. 1	Convertible bonds exchanged for shares	750,000

Lien, the proprietor of a grocery store, prepares her Deluxe Nut Combo by mixing various ingredients she buys in bulk. The second column of the following table presents the amount of each ingredient Lien uses in making a batch of the Combo mix. In order to set the retail price of the Deluxe Nut Combo at 150% of her cost, Lien must determine her cost based on the average wholesale cost of the ingredients given in the third column.

- What is Lien's average cost per 100 g of her Deluxe Nut Combo? (Round to 4 decimal places)
- What is her retail price per 100 g? (Round to 2 decimal places)

Ingredient	Amount	Cost per kg
Peanuts	5 kg	\$2.95
Cashews	2 kg	\$9.50
Almonds	1 kg	\$11.50
Sunflower seeds	500 g	\$2.75
Raisins	400 g	\$3.60
Smarties	300 g	\$6.40

Johnston Distributing, Inc. files quarterly GST returns. The purchases on which it paid the GST and the sales on which it collected the GST for the last four quarters were as follows:

Calculate the GST remittance or refund due for each quarter. (Assume GST = 6%)

Quarter	Purchases (\$)	Sales (\$)
1	596,476	751,841
2	967,679	627,374
3	823,268	1,231,916
4	829,804	994,622

Sawchuk's Home and Garden Centre files monthly GST returns. The purchases on which it paid the GST and the sales on which it collected the GST for the last four months were as follows: Calculate the GST remittance or refund due for each month. (Assume GST = 6%)

Month	Purchases (\$)	Sales (\$)
March	135,650	57,890
April	213,425	205,170
May	176,730	313,245
June	153,715	268,590

Calculate the total amount, including both GST and PST, that an individual will pay for a car priced at \$39,500 in:a) Alberta.b) Saskatchewan.c) Quebec.

Province	GST rate (%)	HST rate (%)	PST rate (%)
Alberta	5	-	-
British Columbia	5	-	7
Manitoba	5	-	7
New Brunswick	-	13	-
Newfoundland and Labrador	-	13	-
Nova Scotia	-	15	-
Ontario	-	13	-
Prince Edward Island	-	14	-
Quebec	5	-	9.975
Saskatchewan	5	-	5

How much more will a consumer pay for an item listed at \$1000 (pretax) in Prince Edward Island than in Manitoba?

Province	GST rate (%)	HST rate (%)	PST rate (%)
Alberta	5	-	-
British Columbia	5	-	7
Manitoba	5	-	7
New Brunswick	-	13	-
Newfoundland and Labrador	-	13	-
Nova Scotia	-	15	-
Ontario	-	13	-
Prince Edward Island	-	14	-
Quebec	5	-	9.975
Saskatchewan	5	-	5

Sam buys a sweater listed at \$100. How much will he pay for the sweater including taxes in: a) Ontario? b) Quebec? c) Alberta? d) Manitoba?

Province	GST rate (%)	HST rate (%)	PST rate (%)
Alberta	5	-	-
British Columbia	5	-	7
Manitoba	5	-	7
New Brunswick	-	13	-
Newfoundland and Labrador	-	13	-
Nova Scotia	-	15	-
Ontario	-	13	-
Prince Edward Island	-	14	-
Quebec	5	-	9.975
Saskatchewan	5	-	5

Angie's Flower Shop charges 13% Harmonized Sales Tax (HST) on all purchases. a) How much HST will she report for a plant priced at \$39.45? b) As of February 4, 2013, if a consumer pays cash and cannot give the exact change, the total amount of the transaction must be rounded up or down to the nearest five cents. How much change will be given if the above purchase is paid for with a \$50 bill?

To attract shoppers, retailers occasionally advertise something like "Pay no HST!" Needless to say, neither the federal nor the provincial government is willing to forego its sales tax. In this situation, the retailer must calculate and remit the HST as though the "ticket" price already includes these sales taxes. How much HST must a retailer in New Brunswick (where HST is 13%) report on a \$495 item that he sells on a Pay-No-HST basis? (Hint: What percentage is the HST of an HST-inclusive price?)

What are the taxes on a property assessed at \$227,000 if the mill rate is 16.8629?

a) Express a property tax increase of 0.1 mill in terms of dollars per \$100 of assessed value? b) If the mill rate increases by 0.1 mill, what is the dollar increase in property taxes on a \$200,000 home?

The assessment on a farm consists of \$143,000 for the house and \$467,000 for the land and buildings. A mill rate of 15.0294 applies to residences, and a rate of 4.6423 applies to agricultural land and buildings. What are the total property taxes payable on the farm?

The assessed value on a property increased from \$285,000 last year to \$298,000 in the current year. Last year's property tax rate was \$1.56324 per \$100 of assessed value. a) What will be the change in the property tax from last year if the new tax rate is set at \$1.52193 per \$100? b) What would the new tax rate have to be for the dollar amount of the property taxes to be unchanged?

The school board in a municipality will require an extra \$2,430,000 for its operating budget next year. The current mill rate for the school tax component of property taxes is 7.1253. a) If the total of the assessed values of properties in the municipality remains at the current figure of \$6.78 billion, at what value must next year's school mill rate be set? b) If the total of all assessed values rises by 5% over this year's aggregate assessment, at what value must next year's school mill rate be set?

The total assessed value of property in Brockton has risen by \$97 million from last year's figure of \$1.563 billion. The property tax rate last year for city services was \$0.94181 per \$100 of assessed value. If the city's budget has increased by \$750,000, what tax rate should it set for the current year?

Evaluate the following: $(2^3 - 3)^2 - 20 \div (2 + 2^3)$

Evaluate the following: $[4(2 \times 3^2 - 2^3)^2 \div (10 - 4 \times 5)]$

Evaluate the following accurate to the nearest cent: $\$21385(1 - 0.095 \times \frac{5}{12})$

Evaluate the following accurate to the nearest cent: $\frac{\$2315}{1 + 0.0825 \times \frac{77}{365}}$

Evaluate the following accurate to the nearest cent: $\$ 32575 \left(1 + \frac{0.105}{4}\right)^2$

Evaluate the following accurate to the nearest cent: $\frac{\$710}{\left(1 + \frac{0.0925}{2}\right)^3}$

Evaluate the following accurate to the nearest cent: $\$ 88575 \left(1 + 0.0775 \times \frac{231}{365}\right) - \frac{\$47650}{1 + 0.0775 \times \frac{49}{365}}$

Evaluate the following accurate to the nearest cent: $\$ 859 \left(1 + \frac{0.0825}{12}\right)^3 + \frac{\$682}{\left(1 + \frac{0.0825}{12}\right)^2}$

Evaluate the following: $96 - (6 - 4^2) \times 7 - 2$

Evaluate the following: $81 \div (5^2 - 16) - 4(2^3 - 13)$

Evaluate the following accurate to the nearest cent: $\frac{\$827.69}{1+0.125 \times \frac{273}{365}} + \$53149 \left(1 + 0.125 \times \frac{41}{365} \right)$

Evaluate the following accurate to the nearest cent: $\$550.45 \left(1 + 0.0875 \times \frac{195}{365} \right) - \frac{\$376.29}{1+0.0875 \times \frac{99}{365}}$

Evaluate the following accurate to the nearest cent: $\$1137 \left(1 + \frac{0.0975}{12} \right)^2 + \frac{\$2643}{\left(1 + \frac{0.0975}{12} \right)^3}$

What amount is 62% of \$99?

What is 80% of \$156.25?

$\frac{3}{4}\%$ of \$133.33 is what amount?

How many minutes is 12.5% of 2 hours?

The profit forecast for the most recent fiscal quarter is \$23,400. The actual profit is 90% of the forecast profit. What is the actual profit?

Renalda sold Westel stock that she purchased at \$2.20 per share one year ago for a 35% gain. At what price did she sell the stock?

Luther is paid an annual salary of \$56,600 based on a $37\frac{1}{2}$ -hour workweek. a) What is his equivalent hourly wage? (Assume that a year has exactly 52 weeks). b) What would be his total remuneration for a bi-weekly pay period of that year if he worked 4.5 hours of overtime at time and a half?

Istvan earns an annual salary of \$61,000 as an executive with a provincial utility. He is paid biweekly. During a strike, he worked 33 hours more than the regular 75 hours for a two-week pay period. What was his gross pay for that period if the company agreed to pay 1.5 times his equivalent hourly rate for overtime? (Assume that a year has exactly 52 weeks.)

Sonja is paid \$42.50 per hour as a veterinarian. She is paid $1\frac{1}{2}$ times the regular rate for all time exceeding $7\frac{1}{2}$ hours in a day or $37\frac{1}{2}$ hours per week. Work on a statutory holiday is paid at double time. What were her gross earnings for a week in which she worked 6, 0, 3, $7\frac{1}{2}$, 9, $7\frac{1}{2}$, and 8 hours on Saturday to Friday, respectively, and the Monday was a statutory holiday?

Marion receives a monthly base salary of \$1000. On the first \$10,000 of sales above her monthly quota of \$20,000, she is paid a commission of 8%. On any additional sales, the commission rate is 10%. What were her gross earnings for the month of August, in which she had sales amounting to \$38,670?

Lauren's gross pay for July was \$3188.35 on net sales totalling \$88,630. If her base salary is \$1000 per month, what is her rate of commission on sales exceeding her monthly quota of \$40,000? (Round to the nearest 0.01%)

Havel signed a listing agreement with a realtor. The commission rate is 4% on the first \$200,000 of the selling price, and 2.5% on the remainder. a) What commission will Havel pay if he sells his home for \$289,000? b) What is the average commission rate on the selling price? (Round to the nearest 0.01%)

"Souvenirs and Such" is a gift shop in Niagara Falls. Last year 22% of its revenue came from the sale of clothing, 18% from food items, 32% from novelty items and the remainder from special services they provide for tourists. This past year they experienced a 5% increase in the sale of clothing, a 2% increase in the sale of food items, a 9% drop in novelty items and a 2% drop in special services. What is the average change in their revenue for this year? (Round to the nearest 0.01%)

Ms. Yong invested a total of \$73,400 in three mutual funds as shown in the table below. The third column shows the change in value of each fund during the subsequent six months. What was the percent change in value of Ms. Yong's overall mutual fund portfolio during the six-month holding period? (Round to the nearest 0.01%)

Mutual Fund	Amount Invested (\$)	Change in Value (%)
Canadian equity fund	16,800	-4.3
US equity fund	25,600	-1.1
Global equity fund	31,000	8.2

One year ago, Helga allocated the funds in her portfolio among five securities in the amounts listed in the following table. The rate of return on each security for the year is given in the third column of the table.

Calculate the weighted rate of return for the entire portfolio. (Round to the nearest 0.01%)

Security	Amount Invested (\$)	Rate of Return for the year (%)
Company U shares	5,000	30
Province V bonds	20,000	-3
Company W shares	8,000	-15
Units in Fund X	25,000	13
Company Y shares	4,500	45

Anthony began the year with \$96,400 already invested in his Snow 'n Ice retail store. He withdrew \$14,200 on March 1 and another \$21,800 on April 1. On August 1, he invested \$23,700, and on November 1 he contributed another \$19,300. What was his average cumulative investment during the year? (Assume that each month has the same length.)

The fiscal year for Pine Valley Skiing Ltd., the owner of a downhill skiing facility, ends on June 30. The company began the recently completed fiscal year with its summer maintenance crew of 7. The following table presents the sequence of employees hired and laid off during the fiscal year:

What was the average number of employees working for Pine Valley during the fiscal year? (Assume that each month has the same length.) (Round to 1 decimal place)

Date	Employee Changes.
Sept. 1	6 hired
Nov. 1	18 hired
Dec. 1	23 hired
Mar. 1	11 laid off
Apr. 1	20 laid off
May 1	16 laid off

Evaluate the following accurate to the nearest cent: $\$ 250\left(1+0.05 \times \frac{145}{365}\right)$

Evaluate the following accurate to the nearest cent: $\frac{\$ 2500}{1+0.06 \times \frac{8}{12}}$

Evaluate the following accurate to the nearest cent: $\frac{\$ 5000}{(1+0.04)^2}$

Evaluate the following accurate to the nearest cent: $\$ 700(1+0.05)^3$

Evaluate the following accurate to the nearest cent: $\$ 1100 \left[\frac{(1+0.05)^2 - 1}{0.05} \right]$

Evaluate the following accurate to the nearest cent: $\$ 3000 \left(1 + 0.04 \times \frac{285}{365} \right)$

Evaluate the following accurate to the nearest cent: $\frac{\$750}{1 + 0.04 \times \frac{5}{12}}$

Evaluate the following accurate to the nearest cent: $\frac{\$100}{1 + 0.025 \times \frac{13}{12}}$

Evaluate the following accurate to the nearest cent: $\frac{\$1000}{(1+0.05)^2}$

Evaluate the following accurate to the nearest cent: $\$1700(1 + 0.04)^3$

Evaluate the following accurate to the nearest cent: $\$ 6000 \left[\frac{(1+0.045)^2 - 1}{0.045} \right]$

Evaluate the following: $30 \div 3 + 12 \div 4$

Evaluate the following: $30 \div (3 + 12) \div 2$

Evaluate the following: $12 + 3[2 + (4^2 - 13)^2]^2$

Evaluate the following: $5 - (2 - 4)^2 + 2^3 - 4^2$

Convert the following to its decimal and percent equivalents: $2\frac{2}{5}$

Convert the following to its decimal and percent equivalents: $\frac{0.050}{4}$

Evaluate the following accurate to the nearest cent: $\$ 500 \left[\frac{(1+0.04)^6 - 1}{0.04} \right]$

Evaluate the following accurate to the nearest cent: $\frac{\$80 \left[1 - \frac{1}{\left(1 + \frac{0.03}{2}\right)^4} \right]}{\frac{0.03}{2}} + \frac{\$1000}{\left(1 + \frac{0.03}{2}\right)^4}$

What is 0.54% of \$200?

20% of \$75 is what amount?

Syed's net pay is 81% of his gross pay. His net pay for two weeks is \$1069.20. What is his gross pay for two weeks?

What amount is 130% percent of \$1150?

Hany earns \$17.00 per hour for a forty-hour week. His overtime rate is $1\frac{1}{2}$ times any hours exceeding forty in a week. What will Hany's gross earnings be for a week if he works 42.5 hours?

Larissa works in a retail store in Square One in Mississauga. She earns a base salary of \$320 per week, and a commission of 3% on sales over her quota of \$5000. How much will Larissa earn if her sales for the week are: a) \$4500? b) \$8500?

Kristina is a sales representative for a pharmaceutical company. She is paid the greater of \$3500 per month or 5% of sales. a) What are her earnings for the month if her sales are \$60,000? \$78,000? b) At what volume of sales per month will she start to earn more from the commission-based compensation?

Safa's gross pay last month was \$3300.00. Her base salary is \$3000 per month, plus a commission of 2% on sales over \$60,000. What were Safa's sales for last month?

Cliff is a sales manager for a convention centre. He is paid on a graduated commission scale of 0.5% on the first \$200,000, 0.7% on the next \$300,000, and 0.8% on all additional sales for the month. What are Cliff's gross earnings in a month in which he sells: a) \$400,000? b) \$700,000?

Fatima took six courses last semester. Her grades and course credits are as follows:
Using the Letter Grade to Grade Point Value conversion table below, calculate her grade point average for the semester. (Round to 2 decimal places)

Course	Grade	Credits
Accounting	B+	3
Business Mathematics	A	4
Human Resources	B	3
Economics	C+	3
Computer Applications	A	2
Marketing	B	3
Letter Grade	Grade Points	
A	4.0	
A-	3.7	
B+	3.3	
B	3.0	
B-	2.7	
C+	2.3	
C	2.0	
C-	1.7	
D	1.0	

The following grades are from the first business mathematics test in the semester. What is the class average?

Grade	Number of Students
100	2
97	3
95	4
91	1
88	2
87	2
85	3
80	5
78	3
77	2
75	4
65	2
60	3
58	4
41	1
40	1

Mrs. Sandhu invested \$10,000 at 5%, \$15,000 at 4%, and \$20,000 at 3%. Calculate Mrs. Sandhu's overall rate of return. (Round to the nearest 0.01%)

Akini is paid on a graduated commission scale of 1% on his first \$200,000 in sales, 2% on the next \$300,000, and 4% on all additional sales in a month. What is Akini's average commission rate on monthly sales totalling \$600,000?

Jenna bought a car for \$42,050.90, which included 8% PST and 5% GST. What was the selling price of the car?

M Studios files GST returns quarterly. In the last quarter, M Studios sold picture frames totalling \$3,750, photographic equipment for \$78,225, and billed \$43,580 for studio work. In the same time period, M Studios paid \$3,000 for rent, \$1275 for utilities, and purchased goods subject to GST for \$65,000. What GST must be remitted by M Studios for this quarter? (Assume GST = 5%)

The town of Simcoe is considering raising the \$2 billion required for a sports complex by approving a new capital levy component of the property tax. The levy must be collected over the next five years. If the total assessed value of property in the town is \$875 billion, what additional tax will a home owner of a property assessed at \$300,000 pay?

Solve: $10 + 18 \times 12$

Solve: $2 \times 4 + 7 - 12$

Solve: $(10 + 3) \times 4$

Solve: $2 \times (8 - 2) - 12$

Solve: $4 + 4 \times 3 - 3^3 + 9$

Solve: $7 - 2 \times 2 + 2^3 \times 2$

Solve: $3 \times 5 + (3^2 + 2)$

Solve: $(1 - 2) \times (1 + 2^2) \times 10$

Solve: $12 - 42 (5 - 1) \times 4$

Solve: $12 - 30(5 - 2) \times 4$

Solve: $96 - 42(7 - 4) \times 5$

Solve: $(4 - 3 \times 2)^2 \div (4 - 5 \times 2^2)$

Solve: $[(4 + 8 \times 4) - 5 \times (-7)] \div 2$

Solve: $4[2 + (3^2 - 6)^2]^3$

Solve: What is 2.5% of \$40,045.60?

What is $33\frac{1}{3}\%$ of 999.

What is 5.65% of \$4.99?

What amount is 400% of \$175?

0.075% of \$185 is what amount?

How much is 12% of \$120?

A local nightclub measures customers coming into the club to measure peak hours in three hour intervals. If the nightclub is open from 6pm to 3am and the amount of patrons are as follows: 100

person between 6pm and 9pm, 150 people between 9pm and 12am and 250 people between 12am and 3am. What percentage of patrons is attributed to each three hour period?

You are building a new garage and have budgeted 15% of the \$60,000 construction cost for a garage door. If you purchase a garage built out of recyclable materials, you can get a 7% rebate on your tax bill from the local government. What is the dollar value of the rebate on the windows?

You are trying to budget your college education and have \$15,000 to spend over an eight month period. You believe books will cost \$3,000, tuition will be \$8,000 and the balance will be for personal expenses. What percentage of the budget will you allocate towards personal expenses?

In the three-month quarter ending in March, your store had sales of \$98,200, not including taxes, from its clothing and shoes. If clothing accounted for 62% of sales and you collected 5% GST on these sales, how much GST was collected on sales from clothing?

In the three-month quarter ending in March, your store had sales of \$98,200, not including taxes, from its clothing and shoes. If clothing accounted for 62% of sales and you collected 13% HST on these sales, how much HST was collected on sales from clothing?

At a fundraising event, the local charity raised 32% of their sales in chocolate chip cookies, 40% of their sales in oatmeal raisin cookies and the balance in white macadamia cookies. If the charity sold 120 chocolate chip cookies, how many white macadamia cookies did they sell?

The local school announced they sold tickets to their local play. Total tickets were sold were 120. There were two different prices, \$5 for students and \$10 for all others. If total sales were \$800 and $66\frac{2}{3}$ sales were to students, how much money was raised by tickets to others?

The local health department reported that the local water supply is 98.5% clean of toxins, well in accordance with health standards. If a person normally drinks eight glasses of water a day, each glass is 400ml of water, how many ml of impurities do they digest on a daily basis?

You are offered an opportunity to work for a local car company. They will pay a 13% commission on all sales. You will have to pay 35.45% in taxes and other deductions to the government. How many dollars in sales much you achieve in order to net \$50,000?

You have been offered an annual salary of \$78,000, paid bi-weekly. You will be paid for 37.5 hours per week and will receive overtime at the rate of one and a half times for any excess hours per week. What will be your overtime rate per hour if you do work any overtime?

Your client receives an annual salary of \$46,800 based on a forty-hour workweek. They have asked you to help decide how much to contribute to a RRSP account. What are their gross earnings for a two-week pay period in which they work four hours of overtime at one and a half times their regular rate of pay?

Your younger sister has asked you to help figure out if their paycheck is correct. She is paid an annual salary of \$50,050 based on a 35-hour workweek. What should be her gross pay for a biweekly pay period if she works 37 hours in the first week and 42 hours in the second week? Overtime is paid at time and a half.

Your company is switching you from an employee to working on a contract basis. Your current compensation is an hourly rate of \$42.50 for a 37.5-hour workweek and will switch to an amount to be paid monthly. What should you be paid every month in order for your annual earnings to remain the same? Assume the same dollar amount per month, regardless of the number of days in a month.

Your regular hourly rate of pay is \$15.86 and you are paid double time for all work on weekends and for any time over forty hours per week (Monday to Friday). Calculate your gross earnings

for a week in which you work 4.5 hours (Saturday), 0 hours (Sunday) and forty-three hours Monday through Friday.

A person is offered a job working in a meat factory preparing chickens for packaging. The job offer is to be paid \$15.50 per hour plus a piecework rate that depends on the number of chickens processed. A flat fee of \$0.25 per chicken is paid plus an additional \$0.25 for any chickens processed over fifty per hour in an eight-hour shift. (Assume five days per week) What is their total pay for a regular workweek in which their output on successive days is 48, 54, 46, 56, and 43 chickens?

You are offered a job planting trees for a summer. You will be paid \$0.10 per tree with no hourly wage. If you exceed 1,000 trees per day, you will receive a bonus of \$0.10 a tree. In the first week you worked seven days and planted the following amount of trees per day: 900, 900, 800, 1,100, 900, 1,200 and 1,300. If you planted more than 5,000 trees per week, you received a \$100 bonus. What would be your gross earnings for the week?

As a financial services graduate, you are offered a part-time job at an independent insurance broker placing various clients with any of several insurance companies. On homeowner insurance policies, each month, you will receive a 10% commission on all sales. For automobile policies, you will receive 1% on all sales and \$5 per policy. You will also receive a 3% monthly bonus, on all sales, if your policy sales exceed \$7,000. If you sold ten homeowner policies for \$5,500 and twelve automobile policies for \$3,200 (four policies), how much are your gross earnings?

Your partner opens a new business selling sparkling wine from Belgium to the local wine stores. They will receive a straight commission of \$5 per bottle. At the year-end, they can receive a 9% bonus on all sales that exceed 10,000 bottles, from the vintner. What will their gross annual earnings be for a year in which their average monthly sales are 1,000 bottles, at a selling price of \$15 per bottle?

You classmate is considering two job offers from two manufacturers. Offer A is a base salary of \$4,000 per month plus 3.5% of total sales. Sales are estimated to be \$35,000 per month. Offer B is a base salary of \$2,000 per month plus 4.5% on the first \$500,000 of annual sales, increasing to 6.5% for all sales over \$500,000. Monthly sales are estimated to be \$49,000 per month. Which offer would produce the highest gross income and what are the estimated annual earnings for the best job?

Based on past experience in similar sales positions, a salesperson believes they can earn \$5,000 per month. The company is offering a commission of 3% on the first \$100,000 in sales and 4.5% on all sales that exceed \$100,000. What sales would need to be achieved in order to meet the monthly earnings of \$5,000 per month?

A car salesperson is paid the greater of \$2,500 per month or 11.5% of sales. What are their earnings for a month if they can sell \$24,000 worth of vehicles?

A commercial real estate salesperson receives commission on a graduated commission structure. They receive 1.5% on the first \$100,000 of a sell, 2.2% between \$100,000 and \$200,000 and 3% on sales in excess of \$200,000. What are their gross earnings for a month in which they sell three listings, the first for \$180,000, the second for \$240,000 and the last for \$340,000?

A survey of 460 students randomly chosen revealed that 200 had one child at home, 100 had two kids at home, 50 had three kids at home and the remainder had no kids at home. No students exceeded more than three kids in their household. Based on the survey, what would you estimate to be the average number of kids per student?

In your TFSA account, you purchased 10,000 shares of ATH at a cost of \$1.75. As the price dropped, you purchased another 10,000 shares at \$1.22 each. You purchased another 5,000 shares when the price dropped again, to \$.80. By averaging down, what is your average cost per share?

A car salesperson's sales for the month are as follows: four days with no sales, ten days with one sale, twelve days with two sales, three days with three sales and two days with four sales. Calculate the average daily sales?

A salesperson will receive a graduated commission that pays them 2.4% on the first \$100,000 in sales, 3.2% on the next \$200,000, and 4.7% on all additional sales in a month. What is the average commission rate on sales for a month totalling \$600,000?

You spent the summer touring Western Canadian cities. You spent four nights in a hotel in Vancouver at \$175 a night, three nights in a Banff hotel at \$280 a night, two nights in Calgary for \$139, two nights in Saskatoon for \$129 and two nights in Winnipeg for \$99 a night. What was the average cost of the hotel rooms for the entire trip?

You trying to consolidate your debt. You currently have \$5,200 on your credit card at 21% per year, \$2,000 on a line of credit at 7% per year and \$12,000 on a bank loan at 5.5% per year. What is your average cost of debt?

One year ago, you allocated the funds in your portfolio among four securities in the proportions listed below. The rate of return on each security for the year is given in the third column of the table.

Calculate the rate of return for the entire portfolio.

Security	Proportion invested (%)	Rate of return for the year (%)
Canadian Equity	25	12
Provincial Bonds	10	7
Asian Equity	35	22
Ethical Funds	30	-12

Boeing Canada began its fiscal year with an inventory of 14 units valued at \$10,900 per unit. During the year it made the purchases listed in the following table. At the end of the year, seven units remained in inventory. Determine: The weighted average cost of the ending inventory. Round to the nearest whole dollar.

Date	Units purchased	Unit cost (\$)
January	4	10,700
June	6	9,800
October	5	10,970

The balance on your line of credit began the month at \$2,000. On the fifth of the month, another \$1,000 was borrowed. A payment of \$500 was made on the 16th day of the month. Assuming 31 days in the month, what was the average balance on the loan during the month? (Use each day's closing balance as the loan balance for the day.)

A small pizzeria specializes in deluxe pizzas. They need to calculate their cost so they can properly price the deluxe pizza. The following list is each ingredient and the cost. What is the cost of the deluxe pizza if the deluxe pizza requires 100 grams of ham, 50 grams of green peppers, 20 grams of onions, 200 grams of cheese and 100 grams of sauce? Assume a single crust costs \$1.20.

Ingredient	Amount	Cost per kg
Ham	1 kg	\$9.90
Green Peppers	1 kg	\$4.50
Onions	1 kg	\$2.50
Cheese	500 g	\$12.00
Sauce	200 g	\$1.60

Your company files quarterly GST returns. If purchases were \$212,000 and sales were \$543,000, was there a GST (5%) remittance or refund and for what amount?

Johnson Controls files monthly HST returns. They purchased \$100,000 on which it paid the HST and they sold \$356,000 on which it collected the HST. Based on an HST rate of 13%, calculate the HST remittance or refund due.

You are calculating whether to purchase small cartons for your company in Alberta or in Manitoba. If the total tax rate in Alberta is 5% and 12% in Manitoba, which province would provide the best deal if Manitoba charges \$2.00 a carton and Alberta charges \$2.00 a carton plus a taxable delivery fee of \$0.20 per carton? What is the savings per carton?

Canada has converted to Swedish rounding for all cash transactions. If a customer purchases an item for \$19.99, PST is 7% and GST is 5%, how much change will they receive if they pay with a \$20 bill and a \$10 bill?

You just purchased a couch at a "Pay No Sales Tax" event. The final price of the couch was \$799. If PST is 7% and GST is 5%, how much must the company allocate for both taxes?

Your company advertises all prices on the menu board as a final price, including HST of 13%. A customer asks what the actual cost of a cup of coffee is if it is listed on the menu board for \$1.85?

You are looking at purchasing a house with an assessed value of \$197,000. What will be the annual property taxes if the mill rate is 14.5437?

You are looking at purchasing a house with an assessed value of \$497,000. What will be the annual property taxes if the tax rate is 1.5689?

The assessment on a small business consists of \$450,000 for the warehouse and outbuildings and \$1,050,000 for the land. A mill rate of 13.0586 applies to warehouse and buildings, and a rate of 5.8567 applies to the land. What are the total property taxes payable on the property?

The assessment on a small business consists of \$450,000 for the warehouse and outbuildings and \$1,050,000 for the land. A tax rate of 1.3059 applies to warehouse and buildings, and a rate of 5856 applies to the land. What are the total property taxes payable on the property?

The assessed value on a property increased from \$432,000 last year to \$568,000 in the current year. Last year's property mill rate was \$13.6324. What will be the change in the property tax from last year if the new mill rate is set at \$13.2193?

The police department in a city will require an extra \$7,820,000 for its operating budget next year, due to a dramatic increase in crime. The current mill rate for the police department component of property taxes is 4.1253. If the total of the assessed values of properties in the city remains at the current figure of \$9.62 billion, what value must next year's mill rate be set at?

Answer Key

Test name: Ch1_Business Mathematics in Canada_11e

A

B

C

D

E

A

B

C

D

D

E

A

B

C

D

E

A

B

C

D

E

A

B

C

D

E

A

B

C

D

E

A

A

B

D

E

A

B

C

D

E

A

B

C

D

E

A

B

C

D

E

Correct option is E:

6.3%

Explanation:

Weighted average rate of mortgage = $\frac{\$100000 \times 0.0505 + \$50000 \times 0.0780}{\$150000}$
= $\frac{\$5500 + \$3900}{\$150000}$
= $\frac{\$9400}{\$150000}$
= 0.062667 or 6.3%.

A

Correct option is A:

5.9%

Explanation:

Weighted average rate of mortgage = $\frac{\$175000 \times 0.058 + \$25000 \times 0.067}{\$200000}$
= $\frac{\$10150 + \$1675}{\$200000}$
= $\frac{\$11825}{\$200000}$
= 0.059125 or 5.9%.

B

C

D

E

Correct option is E:

\$0.00; \$59.50; \$42.50

Explanation:

Alberta = $\$850 \times 0\% = \0.00

Manitoba = $\$850 \times 7\% = \59.50 Saskatchewan = $\$850 \times 5\% = \42.50

B

C

C

D

E

A

B

B

E

B

C

C

A

C

B

D

D

D

B

Correct option is B:

\$6.00

Explanation:

Weighted average cost per share= $(500 \text{ shares} \times \$10 + 10000 \text{ shares} \times \$6 + 1000 \text{ shares} \times \$4) / (500 \text{ shares} + 10000 \text{ shares} + 1000 \text{ shares})$
= $\$5000 + \$60000 + \$4000 / 11500 \text{ shares}$
= $\$69000 / 11500 \text{ shares} = \6.00 per share

E

B

E

D

A

B

E

Correct option is E:

\$1.70

Explanation:

Weighted average selling price per unit = $(30 \text{ units} \times \$1.25 + 60 \text{ units} \times \$1.95 + 9 \text{ units} \times \$1.50) / (30 \text{ units} + 60 \text{ units} + 9 \text{ units})$

$= \$37.50 + \$117 + \$13.50 / 99 \text{ units}$

$= \$168 / 99 \text{ units}$

$= 1.69697 \text{ or } \$1.70$

A

B

C

E

Correct option is E: \$6,906.25

A

B

Correct option is B: \$684.25

C

Correct option is C:

\$1.35

Average cost per share =

$(10000 \text{ shares} \times \$1.75 + 10000 \text{ shares} \times \$1.22 + 5000 \text{ shares} \times \$0.80) / 10000 \text{ shares} + 10000 \text{ shares} + 5000 \text{ shares}$

$= (\$17500 + \$12200 + \$4000) / 25000 \text{ shares}$

$= \$33700 / 25000 \text{ shares} = \$1.348 \text{ or } \$1.35$

D

E

A

Correct option is A:

\$174.92

Explanation:

Weighted average cost of the hotel rooms for the entire trip = $4 \text{ nights} \times \$175 + 3 \text{ nights} \times \$280 + 2 \text{ nights} \times \$139 + 2 \text{ nights} \times \$129 + 2 \text{ nights} \times \$99 / 4 \text{ nights} + 3 \text{ nights} + 2 \text{ nights} + 2 \text{ nights} + 2 \text{ nights}$
= $(\$700 + \$840 + \$278 + \$258 + \$198) / 13 \text{ nights}$
= $\$2274 / 13 \text{ nights} = \$174.923 \text{ or } \$174.92$

B

C

D

Short Answer

4

Short Answer

18

Short Answer

24

Short Answer

4

Short Answer

20

Short Answer

24

Short Answer

49

Short Answer

66

Short Answer

0.5

Short Answer

8

Short Answer

6

Short Answer

-4

Short Answer

255

Short Answer

-12.5

Short Answer

9

Short Answer

50,000

Short Answer

\$100.74

Short Answer

\$194.17

Short Answer

\$453.51

Short Answer

\$1,061.21

Short Answer

\$204.00

Short Answer

\$574.04

Short Answer

B: five figures

Short Answer

B: seven figures

Short Answer

C: eight figures

Short Answer

C: five figures

Short Answer

$0.87500 = 87.500\%$

Short Answer

$0.62500 = 62.500\%$

Short Answer

$2.3500 = 235.00\%$

Short Answer

$-0.56250 = -56.250\%$

Short Answer

$$-1.4000 = -140.00\%$$

Short Answer

$$1.2800 = 128.00\%$$

Short Answer

$$0.025000 = 2.5000\%$$

Short Answer

$$40.000 = 4000.0\%$$

Short Answer

$$2.0200 = 202.00\%$$

Short Answer

$$-1.3438 = -134.38\%$$

Short Answer

$$0.75000 = 75.000\%$$

Short Answer

$$-1.8750 = -187.50\%$$

Short Answer

$$0.\overline{83} = 83.\overline{3}\%$$

Short Answer

$$-2.\overline{6} = -266.\overline{6}\%$$

Short Answer

$$7.\overline{7} = 777.\overline{7}\%$$

Short Answer

$$1\overline{09} = 109\overline{09}\%$$

Short Answer

$$1\overline{1} = 111\overline{1}\%$$

Short Answer

$$-0.00\overline{4} = -0\overline{4}\%$$

Short Answer

$$-0.02\overline{59} = -2\overline{59}2\%$$

Short Answer

$$1\overline{370} = 137\overline{037}\%$$

Short Answer

11.38

Short Answer

9.646

Short Answer

0.5545

Short Answer

1000

Short Answer

1.002

Short Answer

0.03041

Short Answer

40.10

Short Answer

0.009091

Short Answer

$0.16667 = 16.667\%$

Short Answer

$1.1667 = 116.67\%$

Short Answer

$0.016667 = 1.6667\%$

Short Answer

$2.5556 = 255.56\%$

Short Answer

$0.68493 = 68.493\%$

Short Answer

$0.041096 = 4.1096\%$

Short Answer

$0.0091667 = 0.91667\%$

Short Answer

$0.0079167 = 0.79167\%$

Short Answer

\$94.68

Short Answer

\$104.58

Short Answer

\$410.99

Short Answer

\$711.98

Short Answer

\$3384.52

Short Answer

\$10,524.80

Short Answer

\$720.04

Short Answer

\$906.13

Short Answer

\$14,435.88

Short Answer

\$439.79

Short Answer

\$509.00

Short Answer

\$0.08

Short Answer

\$62.50

Short Answer

\$0.05

Short Answer

\$0.15

Short Answer

\$738.75

Short Answer

\$4,787.64

Short Answer

80

Short Answer

\$6648.46

Short Answer

\$893.38

Short Answer

\$7159.48

Short Answer

\$1708.14

Short Answer

\$1830.07

Short Answer

\$1011.38

Short Answer

6300 (rounded to the nearest 100)

Short Answer

15.58 mg

Short Answer

\$150,480

Short Answer

\$23,130

Short Answer

\$1324.65 (+/- \$1.00)

Short Answer

\$1701.96 (+/- \$1.00)

Short Answer

\$2474.11 (+/- \$1.00)

Short Answer

\$2730.00

Short Answer

\$796.50

Short Answer

\$2389.13

Short Answer

\$405.00

Short Answer

\$140.63

Short Answer

\$7239.03

Short Answer

\$29,960

Short Answer

Supreme Audio & Video: \$4200 Buy-Right Electronics: \$4050

Short Answer

a) \$619.96 b) \$5454.55 per week

Short Answer

\$6050.00

Short Answer

a) \$3694.00 b) 1.65%

Short Answer

a) \$3988.00 b) 7.27%

Short Answer

\$31,012.67

Short Answer

3.50%

Short Answer

\$110,833.33

Short Answer

\$70,833.33

Short Answer

You should calculate a weighted average when some of the values being averaged are more important or occur more frequently than other values.

Short Answer

The weighted average will equal the simple average when the items being averaged all have the same weighting factor. In other words, each of the values being averaged has the same importance, or occurs the same number of times.

Short Answer

If you invest the same amount of money in each investment, each rate of return has the same importance. The portfolio's rate of return will then equal the simple average of the individual rates of return.

Short Answer

1.53

Short Answer

\$17.59

Short Answer

3.5

Short Answer

a) 3.83% b) 4.70%

Short Answer

7.65%

Short Answer

2.53

Short Answer

7.53

Short Answer

3.04

Short Answer

43.74 days

Short Answer

12.40%

Short Answer

a) \$10.67 b) \$10.66 c) \$2547.74

Short Answer

9.50%

Short Answer

\$38,225.81

Short Answer

25.5

Short Answer

\$7133.33

Short Answer

6,250,000

Short Answer

a) \$0.5433 per 100 g b) \$0.81 per 100 g

Short Answer

Q1) remittance \$9321.90 Q2) refund \$20,418.30 Q3) remittance \$24,518.88 Q4) remittance \$9889.08

Short Answer

March) refund \$4665.60 April) refund \$495.30 May) remittance \$8190.90 June) remittance \$6892.50

Short Answer

- a) \$41,475.00
- b) \$43,450.00
- c) \$45,415.13

Short Answer

\$10.00 more

Short Answer

- a) \$113.00 b) \$114.98 c) \$105.00 d) \$113.00

Short Answer

- a) \$5.13 b) \$5.40

Short Answer

\$56.95 (+/- \$0.05)

Short Answer

\$3827.88

Short Answer

- a) \$0.01 per \$100 b) \$20.00

Short Answer

\$4317.16

Short Answer

- a) \$80.12 increase b) \$1.49504 per \$100

Short Answer

- a) 7.4837 b) 7.1273

Short Answer

\$0.93196 per \$100

Short Answer

23

Short Answer

-40

Short Answer

\$205.39

Short Answer

\$2275.40

Short Answer

\$343.08

Short Answer

\$619.94

Short Answer

\$457.60

Short Answer

\$1549.56

Short Answer

164

Short Answer

29

Short Answer

\$1295.88

Short Answer

\$208.62

Short Answer

\$3735.16

Short Answer

\$61.38

Short Answer

\$125.00

Short Answer

\$1.00

Short Answer

15 minutes

Short Answer

\$21,060.00

Short Answer

\$2.97 per share

Short Answer

a) \$29.03 b) \$2372.90 (+/- \$1.00)

Short Answer

\$3894.51 (+/- \$1.00)

Short Answer

\$2231.25 (+/- \$1.00)

Short Answer

\$2667.00

Short Answer

4.50%

Short Answer

a) \$10,225.00 b) 3.54%

Short Answer

A decrease of 1.98%

Short Answer

2.10%

Short Answer

7.96%

Short Answer

\$8108.33

Short Answer

26.1 employees

Short Answer

\$254.97

Short Answer

\$2,403.85

Short Answer

\$4,622.78

Short Answer

\$810.34

Short Answer

\$2,255.00

Short Answer

\$3,093.70

Short Answer

\$737.70

Short Answer

\$97.36

Short Answer

\$907.03

Short Answer

\$1,912.27

Short Answer

\$12,270.00

Short Answer

13

Short Answer

1

Short Answer

375

Short Answer

-7

Short Answer

2.4 = 240%

Short Answer

$$0.0125 = 1.25\%$$

Short Answer

\$3316.49

Short Answer

\$1250.54

Short Answer

\$1.08

Short Answer

\$15.00

Short Answer

\$120.00

Short Answer

\$1495

Short Answer

\$743.75

Short Answer

a) \$320 b) \$425

Short Answer

a) \$3500; \$3900 b) \$70,000

Short Answer

\$75,000

Short Answer

a) \$2400 b) \$4700

Short Answer

3.27

Short Answer

78

Short Answer

3.78%

Short Answer

2%

Short Answer

\$37,213.19

Short Answer

\$2814.00

Short Answer

\$137.14

Short Answer

226

Short Answer

3

Short Answer

52

Short Answer

0

Short Answer

-38

Short Answer

19

Short Answer

26

Short Answer

-50

Short Answer

-660

Short Answer

-348

Short Answer

534

Short Answer

-0.25

Short Answer

35.5

Short Answer

5,234

Short Answer

\$1,001.14

Short Answer

333

Short Answer

.2819

Short Answer

\$700

Short Answer

\$.13875

Short Answer

\$14.40

Short Answer

First Three Hours 20%

Second Three Hours 30%

Third Three Hours 50%

Short Answer

\$630

Short Answer

26.67%

Short Answer

\$3,044.20

Short Answer

\$7,914.92

Short Answer

105 white macadamia cookies

Short Answer

\$400

Short Answer

48 ml

Short Answer

\$595,841

Short Answer

\$60 per hour

Short Answer

\$1,935

Short Answer

\$2,296.25

Short Answer

\$6,906.25

Short Answer

\$872.30

Short Answer

\$684.25

Short Answer

\$870

Short Answer

\$863

Short Answer

\$62,700

Short Answer

Offer A \$62,700

Short Answer

\$144,444.44

Short Answer

\$2,760

Short Answer

\$16,060

Short Answer

1.2 kids per student

Short Answer

\$1.35

Short Answer

1.65

Short Answer

3.82%

Short Answer

\$174.92

Short Answer

9.854% per annum

Short Answer

7.8%

Short Answer

\$74,598

Short Answer

\$2,612.90

Short Answer

\$8.07

Short Answer

Remittance of \$16,550

Short Answer

Remittance of \$33,280

Short Answer

MB \$0.06

Short Answer

\$7.60

Short Answer

GST \$35.67

PST \$49.94

Short Answer

\$1.64

Short Answer

\$2,865.11

Short Answer

\$7,797.43

Short Answer

\$12,025.91

Short Answer

\$12,025.35

Short Answer

Increase of \$1,619.37

Short Answer

4.9382