Test Bank for Business Mathematics In Canada 11th Edition by Jerome

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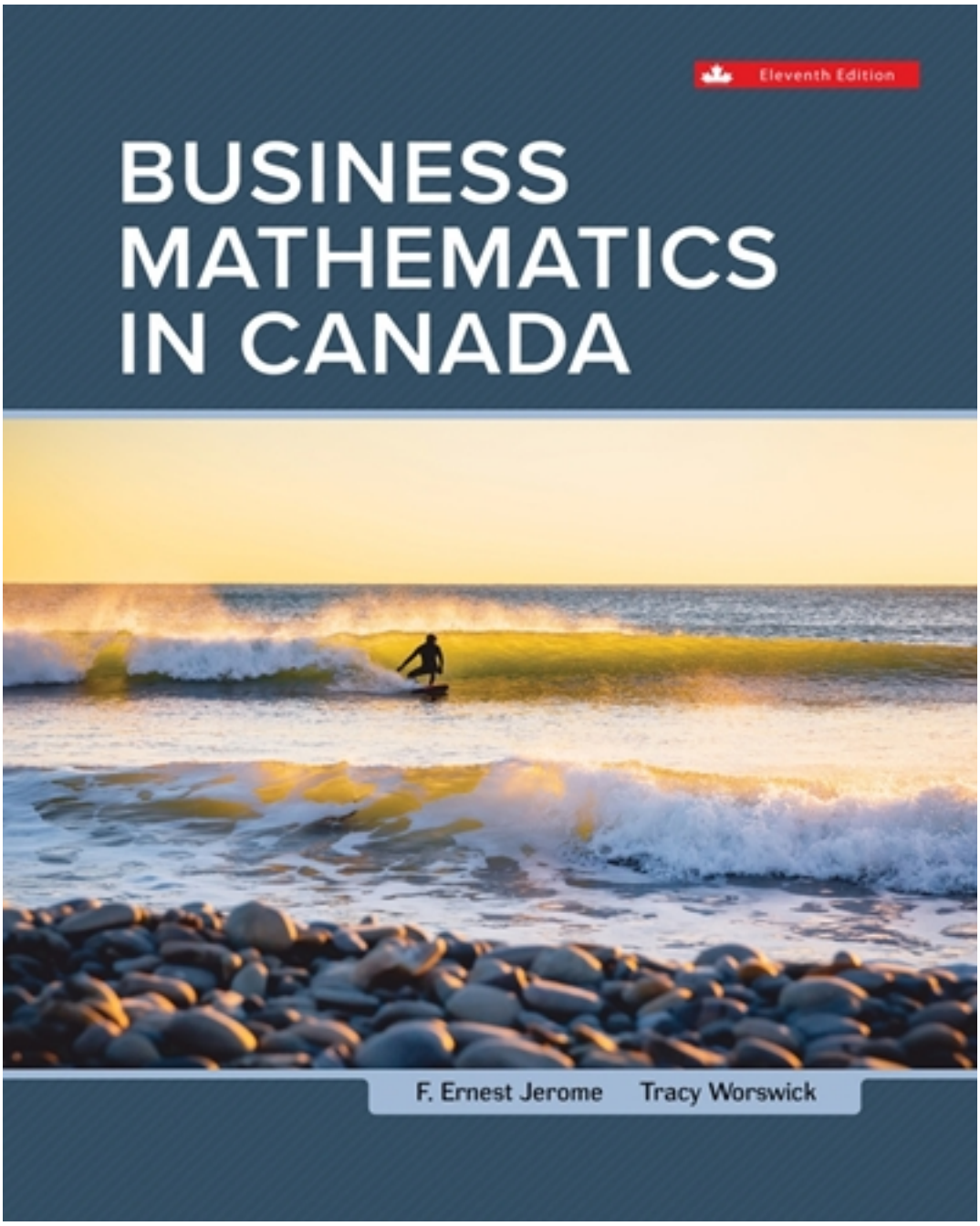

Test Bank

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CORRECT ANSWERS ARE LOCATED IN THE 2ND HALF OF THIS DOC.

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

1) Simplify and collect like terms: -a + (2b - c) - (a - b + c)
   A) -2a + 3b - 2c
   B) -2a + b - 2c
   C) 3b - 2c
   D) -2a + 3b
   E) -2a + 2b - 2c

2) Simplify and collect like terms: 1 - (3x - xy + y) - (-x + y - 5xy)
   A) 1 - 2x - 2y - 6xy
   B) 1 - 2x - 2y + 6xy
   C) 1 - 4x - 2y + 6xy
   D) 1 - 2x - 2y + 4xy
   E) 1 - 4x - 2y - 6xy

3) Simplify and collect like terms: 3(x - 2y) + 4x(2x + y)
   A) 3x + 6xy + 4xy
   B) $7x^2$ -3x + 6y 4xy
   C) $8x^2$ + 3x-6y + 4xy
   D) $8x^2$ - 9xy + 6^x - 4y
   E) $8x^2$ + 10x - 6y + 6xy

4) Simplify and collect like terms: 9x - [4y - 3(x - y)]
   A) 12x + 7y
   B) 6x - 7y
   C) 6x + 7y
   D) 12x - 7y
   E) 9x - 7y

5) Simplify and collect like terms: $\frac{4x+5}{8} - 2.1(x - 7)$
   A) -1.6x - 14.075
   B) -1.6x - 15.325
   C) 2.6x + 15.325
   D) 2.6x - 14.075
   E) -1.6x + 15.325

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6) Simplify and collect like terms: $\frac{x}{4}+\frac{1}{4}-0.7x^2-\frac{1x}{2}+\frac{3}{4}$

A) $-0.7x^2 - 0.25x + 1$
B) $0.7x^2 - 0.4x + 1.15$
C) $-0.7x^2 - 0.4x + 0.35$
D) $0.7x^2 - 0.4x + 0.35$
E) $-0.7x^2 - 0.8x + 1.15$

7) Simplify and collect like terms: $\frac{P}{1+0.07\times\frac{5}{12}}+2P\left(1+0.07\times\frac{4}{12}\right)$

A) 3.076P
B) 3.018P
C) 2.787P
D) 3.532P
E) 2.956P

8) Simplify and collect like terms: $x\left(1+0.045\times\frac{55}{365}\right)+\frac{2x}{\left(1-0.045\times\frac{200}{365}\right)}$

A) 2.957x
B) 2.208x
C) 3.057x
D) 2.068x
E) 1.983x

9) Simplify the following:

$\frac{6xy - 6x^2}{2x}$

A) $3x + 3y$
B) $3xy - 2x$
C) $3xy + 2x^3$
D) $3x - 3y$
E) $3x - 23^2$

10) Simplify the following: $\frac{10xy^2-15x^3y^2+25xy^4}{5xy}$

A) $2y^2 - 3x^2y + 5y^3$
B) $2xy - 3x^2y + 5y^3$
C) $2y - 3x^2y + 5y$
D) $2y - 3x^2 + 5y$
E) $2y - 3x^2y + 5y^3$

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11) Simplify the following: $a \times a^6 \times a^3$

A) a^8
B) a^7
C) a^{10}
D) a^{12}
E) a^{13}

12) Simplify the following: $(a^2)(a^{-6})(a^3)$

A) a^{11}
B) a
C) a^{-36}
D) a^{-1}
E) a^{-5}

13) Simplify the following: $b^8 \div b^2$

A) b^4
B) b^{10}
C) b^{16}
D) b^{-6}
E) b^6

14) Simplify the following: $y^8 \div y^{-5}$

A) y^{13}
B) y^3
C) y^{-40}
D) y^{40}
E) y^{-13}

15) Simplify the following: $(x^5)^2$

A) x^9
B) x^{10}
C) x
D) x^{-1}
E) x^0

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16) Simplify the following: $(2x^3)^5$

A) $10x^{15}$
B) $32x^8$
C) $32x^{15}$
D) $2x^{15}$
E) $2x^8$

17) Simplify the following: $\frac{(x^5)(x)(x^{-3})}{x^4}$

A) x^{-1}
B) x^6
C) x^{-2}
D) x^7
E) x^2

18) Simplify the following: $\frac{(a^3)^{-2}}{a^6}$

A) a^0
B) a
C) a^{-11}
D) a^{-5}
E) a^{-12}

19) Simplify the following: $\frac{(2a^3b^2)^4}{a^2b^3}$

A) $16a^{10}b^5$
B) $2a^{10}b^5$
C) $16a^3b^3$
D) $2a^5b^5$
E) $16a^5b^3$

20) Simplify the following: $\left(\frac{4x}{2x^3}\right)^{-2}\left(\frac{3y^2}{2y^3}\right)^2\left(\frac{3xy}{5}\right)^{-1}$

A) $\frac{5x^2}{16y^3}$
B) $\frac{15x^3}{16y^3}$
C) $\frac{5x^3}{8y^2}$
D) $\frac{15x^3}{4y^3}$
E) $\frac{5x^2}{8y^2}$

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21) Evaluate the following: $20^{1/2}$

A) 10
B) 400
C) 4.47
D) 4.65
E) 5.73

22) Evaluate the following: $-16^{\frac{5}{4}}$

A) 32
B) 64
C) -64
D) -32
E) 10

23) Evaluate the following: $\sqrt[4]{(12189)^2}$

A) 14,857.17
B) 487.56
C) 3714.29
D) 60.945
E) 11.04

24) Evaluate the following: $\frac{104^{10}-1}{0.04}$

A) 12.006
B) 698.137
C) 1.201
D) 36.006
E) 35.58

25) Evaluate the following: $\frac{1055^{6}-1}{0.055}$

A) 233.95
B) 6.888
C) 0.689
D) 23.395
E) 23.763

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26) Evaluate the following: $\frac{1-1075^{-8}}{0.075}$

A) -5.857
B) -10.446
C) 5.857
D) 0.5857
E) 13.485

27) Evaluate the following: $\frac{1-1056^{-15}}{0.056}$

A) -9.971
B) -22.579
C) 58.29
D) 9.971
E) 25.743

28) Evaluate the following: $\left(\frac{4}{3}\right)^{2}\left(\frac{3}{4}\right)^{-3}\left(\frac{4}{3}\right)^{-5}$

A) $\frac{4}{3}$
B) $\frac{3}{4}$
C) $\frac{16}{3}$
D) $\frac{4}{9}$
E) 1

29) The retail price of a computer is $250.00, which includes a discount of 50%. What is the original price of the computer?

A) $500
B) $125.00
C) $166.67
D) $375.00
E) $400.00

30) The retail price of a packaged CD is $60.00, which includes a tax of 4%. What is the actual price of the CD before tax?

A) $57.60
B) $57.69
C) $61.60
D) $50.00
E) $62.00

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31) The commission on a transaction is 3% of the first $100,000 and 2% of the balance. What was the amount of a transaction where the commission charged was $10,100?
A) $225,000
B) $545,000
C) $310,000
D) $355,000
E) $455,000

32) Sam has $20,000 to invest. He invested part of the money at 5% and the rest at 6%. His investments earned $1120 total interest for the year. How much did Sam invest at each rate?
A) $12,000 at 5% and $8000 at 6%
B) $10,000 at 5% and $10,000 at 6%
C) $6000 at 5% and $14,000 at 6%
D) $14,000 at 5% and $6000 at 6%
E) $8000 at 5% and $12,000 at 6%

33) Anders has $35,000 to invest. He invested $20,000 at 3% and $15,000 at 4%. How much total interest did Anders earn?
A) $1,200
B) $600
C) $2,400
D) $800
E) $900

34) Tickets for the school play were $3 for students and $5 for all others. The box office sold 750 tickets for a total of $3200. How many student tickets were sold?
A) 475
B) 275
C) 500
D) 250
E) 300

35) At a United Way fundraiser, students sold a small drink for $2 and a large drink for $3. If they sold 75 drinks and they sold twice as many large drinks to small drinks, how much money did they earn?
A) $100
B) $125
C) $200
D) $250
E) $150

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36) Simplify and collect like terms: 8 - (2x + 4y - 3) - (4y + 10)

A) -8y - 2x + 21
B) -8y - 2x + 1
C) -8y - 2x - 2
D) -2x + 1
E) -2x + 21

37) Simplify and collect like terms: (5x - 2y)(x - 2y)

A) $5x^2 - 12xy - 4y^2$
B) $5x^2 + 8xy - 4y^2$
C) $5x^2 - 12xy + 4y^2$
D) $5x^2 - 8xy + 4y^2$
E) $5x^2 + 12xy + 4y^2$

38) Simplify and collect like terms: 2(b - 2) - (b - 2)

A) b + 6
B) 3b - 2
C) 3b + 2
D) b - 2
E) b - 6

39) Simplify and collect like terms: $\frac{6a+9}{3} - 4(a - 1)$

A) -2a + 13
B) -2a - 1
C) -2a + 7
D) 2a + 7
E) 2a - 1

40) Evaluate the following: $2.48832^{\frac{1}{5}}$

A) 95.396217
B) 0.0104826
C) 1.2
D) 3.0
E) 0.8333333

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41) Simplify the following: $\left(\frac{r^3t^4}{t}\right)^3$

A) r^9t^4
B) r^6t^6
C) r^6t^7
D) r^9t^{11}
E) r^9t^9

42) Simplify the following: $\frac{(r^9)^2(r^6)}{r^{12}}$

A) r^5
B) $r^{\frac{17}{12}}$
C) r^{12}
D) r^2
E) r^{36}

43) Evaluate the following: $(8^2)(2^{-4})(2)^2$

A) 1024
B) 256
C) 4
D) 48
E) 16

44) Solve for the unknown variable: $2x + \frac{1}{8}x = x + 10$

A) $3\frac{1}{5}$
B) $8\frac{8}{9}$
C) $-3\frac{1}{5}$
D) $4\frac{12}{17}$
E) $\frac{9}{80}$

45) Solve for the unknown variable: $\frac{2}{3}(x+3) = -\frac{1}{2}(6x+20) + 15$

A) $2\frac{5}{6}$
B) $\frac{9}{11}$
C) 1.5
D) $-2\frac{13}{22}$
E) 3.875

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46) Solve for the unknown variable: $-\left(\frac{1}{2}x - 5\right) = 2x - 10$

A) 6
B) -6
C) -10
D) $3\frac{1}{3}$
E) 10

47) Solve for the unknown variable: $\frac{x}{15^2} + 3x\left(15\right)^2 = 100$

A) 13.9082
B) 13.8996
C) 14.8148
D) 25
E) 225

48) An employee earns $1600 for 50 hours of work during last week. His regular workweek is 40 hours and he's paid overtime at time and one-half the regular rate of pay. What is the regular hourly rate of pay?

A) $29.09
B) $32.00
C) $29.52
D) $28.52
E) $25.00

49) The price of a litre of gasoline has decreased by 25% since last month. The new price is $1.08 per litre, what was the old price?

A) $1.41
B) $1.33
C) $.81
D) $1.44
E) $1.52

50) A company laid off 80% of its work force. The number of employees after the layoff is 3000. How many employees were there before the layoff?

A) 5400
B) 7200
C) 3600
D) 15,000
E) 3750

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51) The population of a city has grown by 10% in year one, 12% in year two and decreased by (5%) in year three. If the original population was 20,000, what is the current population?
A) 28,459
B) 23,408
C) 24,640
D) 22,000
E) 23,580

52) Bill and Ted decide to throw a party. Bill will have twice as many friends attend as Ted. If each agrees to pay their own share (per friend) and the party will cost $900, what will be the cost per guest if Bill asks twenty friends to attend?
A) $10
B) $20
C) $30
D) $45
E) $50

53) John and Jill agree to form a partnership. The partnership agreement requires that John invests $7000.00 less than one-half of what Jill is to invest. If the total investment of both is $125,000.00, how much is Jill's investment?
A) $88,000.00
B) $37,000.00
C) $78,666.67
D) $46,333.33
E) $74,393.33

54) A used car lot sold 150 cars this month. They had budgeted to sell 200 cars. By what percentage did they fall short?
A) 25%
B) 50%
C) 12.5%
D) 20%
E) 40%

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

55) Simplify and collect the like terms: $(-p) + (-3p) + (4p)$

56) Simplify and collect the like terms: $(5s - 2t) - (2s - 4t)$

57) Simplify and collect the like terms: $4x^2y + (-3x^2y) - (-5x^2y)$

58) Simplify and collect the like terms: $1 - (7e^2 - 5 + 3e - e^3)$

59) Simplify and collect the like terms: $(6x^2 - 3xy + 4y^2) - (8y^2 - 10xy - x^2)$

60) Simplify and collect the like terms: $(7m^3 - m - 6m^2 + 10) - (5m^3 - 9 + 3m - 2m^2)$

61) Simplify and collect the like terms: 2(7x - 3y) - 3(2x - 3y)

62) Simplify and collect the like terms: $4(a^2 - 3a - 4) - 2(5a^2 - a - 6)$

63) Simplify and collect the like terms: 15x - [4 - 2(5x - 6)]

64) Simplify and collect the like terms: 6a - [3a - 2(2b - a)]

65) Simplify the following: 4a(3ab - 5a + 6b)

66) Simplify the following: $9k(4 - 8k + 7k^2)$

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67) Simplify the following: $-5xy(2x^2 - xy - 3y^2)$

68) Simplify the following: $-(p^2 - 4pq - 5p)\left(\frac{2q}{p}\right)$

69) Simplify the following and collect the like terms: (4r - 3t)(2t + 5r)

70) Simplify the following and collect the like terms: $(3p^2 - 5p)(-4p + 2)$

71) Simplify the following and collect the like terms: 3(a - 2)(4a + 1) - 5(2a + 3)(a - 7)

72) Simplify the following and collect the like terms: 5(2x - y)(y + 3x) - 6x(x - 5y)

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73) Simplify the following: $\frac{18x^2}{3x}$

74) Simplify the following: $\frac{6a^2b}{-2ab^2}$

75) Simplify the following: $\frac{x^2y-xy^2}{xy}$

76) Simplify the following: $\frac{-4x+10x^2-6x^3}{-0.5x}$

77) Simplify the following: $\frac{12x^3-24x^2+36x}{48x}$

78) Simplify the following: $\frac{32a^3b-8ab+14ab^2}{2ab}$

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79) Simplify the following: $\frac{4a^2b^3-6a^3b^2}{2ab^2}$

80) Simplify the following: $\frac{120(1+i)^2+180(1+i)^3}{360(1+i)}$

81) Simplify the following expression and collect the like terms: $\frac{x}{2}-x^2+\frac{4}{5}-0.2x^2-\frac{4}{5}x+\frac{1}{2}$

82) Simplify the following expression and collect the like terms: $\frac{2x+9}{4}-12(x-1)$

83) Simplify the following expression and collect the like terms: $\frac{2x}{1045}-\frac{2016x}{3}+\frac{x}{2}$

84) Simplify the following expression and collect the like terms: $\frac{8x}{0.5}+\frac{5.5x}{11}+0.5(4.6x-17)$

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85) Simplify the following expression and collect the like terms. Maintain five-figure accuracy.

$$y\left(1-0.125\times\frac{213}{365}\right)+\frac{2y}{1+0.125\times\frac{88}{365}}$$

86) Simplify the following expression and collect the like terms. Maintain five-figure accuracy (use 4 decimal places).

$$\frac{P}{1+0.095\times\frac{5}{12}}+2P\left(1+0.095\times\frac{171}{365}\right)$$

87) Simplify the following expression and collect the like terms. Maintain five-figure accuracy (use 4 decimal places).

$$\frac{h}{(1+0.055)^2}-3h\left(1+0.055\right)^3$$

88) Simplify the following expression and collect the like terms. Maintain five-figure accuracy (use 4 decimal places).

$$k\left(1+0.04\right)^2+\frac{2k}{(1+0.04)^2}$$

89) Evaluate the following expression for the given values of the variables: $(1 + i)^m - 1$ for i = 0.0225, m = 4

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90) Evaluate the following expression for the given values of the variables and calculate the result accurate to the nearest cent: $R\left[\frac{(1+i)^n-1}{i}\right]$ for R = $550, i = 0.085, n = 3

91) Evaluate the following expression for the given values of the variables and calculate the result accurate to the nearest cent: $R\left[\frac{(1+i)^n-1}{i}\right](1+i)$ for R= $910, i = 0.1038129, n = 4

92) Evaluate the following expression for the given values of the variables and calculate the result accurate to the nearest cent: $\frac{R}{i}\left[1-\frac{1}{(1+i)^n}\right]$ for R = $630, i = 0.115, n = 2

93) Evaluate the following expression for the given values of the variables and calculate the result accurate to the nearest cent: $P(1+rt_1)+\frac{S}{1+rt_2}$ for
$P = \$470, S = \$390, r = 0.075, t_1 = \frac{104}{365}, t_2 = \frac{73}{365}$

94) Simplify the following: $a^2 \times a^3$

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95) Simplify the following: $(x^{6})(x^{-4})$

96) Simplify the following: $b^{10} \div b^{6}$

97) Simplify the following: $h^{7} \div h^{-4}$

98) Simplify the following: $(1 + i)^{4} \times (1 + i)^{9}$

99) Simplify the following: $(1 + i) \times (1 + i)^{n}$

100) Simplify the following: $(x^{4})^{7}$

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101) Simplify the following: $\left(t^{6}\right)^{\frac{1}{3}}$

102) Simplify the following: $(y^3)^3$

103) Simplify the following: $(n^{0.5})^8$

104) Simplify the following: $\frac{(x^5)(x^9)}{x^9}$

105) Simplify the following: $\frac{(x^5)^6}{x^9}$

106) Simplify the following: $[2(1 + i)]^2$

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107) Simplify the following: $\left(\frac{1+i}{3i}\right)^3$

108) Simplify the following: $\frac{4r^5t^6}{(2r^2t)^3}$

109) Simplify the following: $\frac{(-r^3)(2r)^4}{(2r^{-2})^2}$

110) Evaluate the following expression: $8^{\frac{4}{3}}$

111) Evaluate the following expression: $\left(-27^{\frac{2}{3}}\right)$

112) Evaluate the following expression to six-figure accuracy: $7^{\frac{3}{2}}$

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113) Evaluate the following expression to six-figure accuracy: $5^{\frac{-3}{4}}$

114) Evaluate the following expression: $(0.001)^{-2}$

115) Evaluate the following expression to six-figure accuracy (use 5 decimal places): $0.893^{\frac{-1}{2}}$

116) Evaluate the following expression to six-figure accuracy (use 5 decimal places):
$(1.0085)^5(1.0085)^3$

117) Evaluate the following expression to five-figure accuracy (use 4 decimal places):
$(1.001)^4(1.075)^3$

118) Evaluate the following expression to six-figure accuracy (use 5 decimal places):
$(1.005)^3(1.005)^{-6}$

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119) Evaluate the following expression to six-figure accuracy (use 5 decimal places): $\sqrt[3]{103}$

120) Evaluate the following expression to six-figure accuracy (use 5 decimal places): $\sqrt[6]{105}$

121) Evaluate the following expression: $(4^4)(3^{-3})\left(-\frac{3}{4}\right)^3$

122) Evaluate the following expression to six-figure accuracy (use 5 decimal places): $\left[\left(-\frac{3}{4}\right)^2\right]^{-2}$

123) Evaluate the following expression to six-figure accuracy (use 5 decimal places):
$\left(\frac{2}{3}\right)^3\left(-\frac{3}{2}\right)^2\left(-\frac{3}{2}\right)^{-3}$

124) Evaluate the following expression to six-figure accuracy (use 5 decimal places):
$\left(-\frac{2}{3}\right)^3 \div \left(\frac{3}{2}\right)^{-2}$

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125) Evaluate the following expression to six-figure accuracy (use 5 decimal places): $\frac{103^{16}-1}{0.03}$

126) Evaluate the following expression to six-figure accuracy (use 5 decimal places): $\frac{(1.00\overline{83})^{30}-1}{0.00\overline{83}}$

127) Evaluate the following expression to six-figure accuracy (use 5 decimal places): $\frac{1-1.0225^{-20}}{0.0225}$

128) Evaluate the following expression to six-figure accuracy (use 5 decimal places): $\frac{1-(1.00\overline{6})^{-32}}{0.00\overline{6}}$

129) Evaluate the following expression to six-figure accuracy (use 5 decimal places):

$(1+0.0275)^{\frac{1}{3}}$

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130) Evaluate the following expression to six-figure accuracy (use 5 decimal places):

$$\left(1+0.055\right)^{\frac{1}{6}}-1$$

131) Solve the following equation: 10a + 10 = 12 + 9a

132) Solve the following equation: 29 - 4y = 2y - 7

133) Solve the following equation: 0.5(x - 3) = 20

134) Solve the following equation: $\frac{1}{3}(x-2)=4$

135) Solve the following equation: y = 192 + 0.04y

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136) Solve the following equation: x - 0.025x = 341.25

137) Solve the following equation: 12x - 4(2x - 1) = 6(x + 1) - 3

138) Solve the following equation: 3y - 4 = 3(y + 6) - 2(y + 3)

139) Solve the following equation: 8 - 0.5(x + 3) = 0.25(x - 1)

140) Solve the following equation: 5(2 - c) = 10(2c - 4) - 6(3c + 1)

141) Solve the following equation: 3.1t + 145 = 10 + 7.6t

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142) Solve the following equation: 1.25y - 20.5 = 0.5y - 11.5

143) Solve the following equation accurate to the cent: $\frac{x}{11^2} + 2x(11)^3 = \$1000$

144) Solve the following equation accurate to the cent: $\frac{3x}{1025^6} + x(1025)^8 = \$264135$

145) Solve the following equation accurate to the cent: $\frac{2x}{103^7} + x + x(103^{10}) = \$1000 + \frac{\$2000}{103^4}$

146) Solve the following equation accurate to the cent: $x(105)^3 + \$1000 + \frac{x}{105^7} = \frac{\$5000}{105^2}$

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147) Solve the following equation accurate to the cent:

$$x\left(1+0.095\times\frac{84}{365}\right)+\frac{2x}{\left(1+0.095\times\frac{108}{365}\right)}=\$116020$$

148) Solve the following equation accurate to the cent:

$$\frac{x}{1+0.115\times\frac{78}{365}}+3x\left(1+0.115\times\frac{121}{365}\right)=\$1000\left(1+0.115\times\frac{43}{365}\right)$$

149) Use I = Prt to calculate *P*, if r = 0.05, I = $.625, t = 0.25

150) Use $PV=\frac{PMT}{i}$ to calculate *i*, if PMT = $900, PV = $150,000

151) Use S = P(1 + rt) to calculate *P*, if r = 0.004, S = $3626, t = 9

152) Use N = L(1 - d) to calculate *L*, if N = $891, d = 0.10

153) Use N = L(1 - d) to calculate *d*, if N = $410.85, L = $498

154) Use S = P(1 + rt) to calculate *t*, if r = 0.0025, S = $5100, P = $5000

155) Use NI = (CM)X - FC to calculate *CM*, if NI = $15,000, X = 5000, FC = $60,000

156) Use NI = (CM)X - FC to calculate *X*, if NI = -$542.50, CM = $13.50, FC = $18,970

157) Use $N = L(1 - d_1)(1 - d_2)(1 - d_3)$ to calculate *L*, if N = $1468.80, $d_1 = 0.20$, $d_2 = 0.15$, $d_3 = 0.10$

158) Use $N = L(1 - d_1)(1 - d_2)(1 - d_3)$ to calculate d_2, if N = $70.29, L = $99.99, $d_1 = 0.20$, $d_3 = 0.05$

159) Use FV = PV(1 + i_1)(1 + i_2)(1 + i_3) to calculate i_1, if PV = \$1000, \$1094.83, i_2 = 0.03, i_3 = 0.035

160) Use $FV = PMT\left[\frac{(1+i)^n - 1}{i}\right]$ to calculate *PMT*, if FV = \$1508.54, n = 4, i = 0.05

161) Use $PV = PMT\left[\frac{1-(1+i)^n}{i}\right]$ to calculate *PMT*, if PV = \$6595.20, n = 20, i = 0.06

162) Rearrange I = Prt to isolate *t* on the left side.

163) Rearrange $PV = \frac{PMT}{i}$ to isolate *i* on the left side.

164) Rearrange N = L(1 - d) to isolate *d* on the left side.

165) Rearrange NI = (CM)X - FC to isolate *CM* on the left side.

166) Rearrange NI = (CM)X - FC to isolate *X* on the left side.

167) Rearrange S = P(1 + rt) to isolate *r* on the left side.

168) Rearrange S = P(1 + rt) to isolate *t* on the left side.

169) Rearrange $N = L(1 - d_1)(1 - d_2)(1 - d_3)$ to isolate d_1 on the left side.

170) Rearrange $N = L(1 - d_1)(1 - d_2)(1 - d_3)$ to isolate d_3 on the left side.

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171) Rearrange $FV = PV(1 + i)^n$ to isolate *PV* on the left side.

172) Use $FV = PV(1 + i)^n$ to calculate *i*, if PV = $2000, FV = $9321.91, n = 20

173) Use $FV = PV(1 + i)^{-n}$ to calculate *i*, if PV = $5167.20, FV = $10,000, n = 15

174) Rearrange $FV = PV(1 + i)^n$ to isolate *i* on the left side.

175) A web site had 2/7 more hits last month than in the same month of the preceding year. If there were 2655 hits last month, how many were there 1 year earlier?

176) A newspaper agency had 1/3 more subscribers for one month due to a marketing promotion. If there were 2,400 subscribers at the end of the promotion (including all new subscribers), how many more subscribers were added because of the marketing promotion?

177) The retail price of a pair of skis consists of the wholesale cost to the retailer plus the retailer's markup. If skis retailing for $712 are marked up by 60% of the wholesale cost, what is that wholesale cost?

178) The price tags in Annie's Flower Shop include the 13% Harmonized Sales Tax (HST). How much HST will she report for a plant sold at $39.55?

179) The Furniture Store offered a couch for sale during a "Pay no Tax" promotion. If the list price was $975 and the total tax rate was 12%, how much was the price of the couch?

180) A stockbroker's commission on a transaction is 2.5% of the first $5000 of the transaction amount and 1.5% of the remainder. What was the amount of a transaction that generated a total commission of $227?

181) A caterer has the following price structure for banquets. The first 20 meals are charged the basic price per meal. The next 20 meals are discounted by $2 each and all additional meals are each reduced by $3. If the total cost for 73 meals comes to $1686, what is the basic price per meal?

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182) Econocar offers two plans for one-week rentals of a compact car. A rate of $295 per week includes the first 1000 kilometres. Extra distance costs 15 cents per kilometre. A weekly rate of $389 allows unlimited driving. Rounded to the nearest kilometre, beyond what driving distance is the unlimited driving plan cheaper?

183) You have a choice of leasing a vehicle or renting a vehicle. The lease rate is $500 per month and $.20 per kilometer over 10,000 kms. The rental vehicle is $700 per month with a mileage charge of $.10 per kilometer over 20,000 kms. If you plan on driving the vehicle for 50,000 kms., what will be the difference in price between the lease and the rental.

184) Jian pays 38% income tax on any additional earnings. She has an opportunity to work overtime at 1.5 times her base wage of $23.50 per hour. Rounded to the nearest quarter hour, how much overtime must she work to earn enough money (after tax) to buy a canoe that costs $2750 including sales taxes?

185) Raj pays a dividend tax of 20% on Canadian investments. If Raj purchases 1,000 shares that pay a 4% annual dividend, how much would each share have to be worth to net $10,000?

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186) When making a salad dressing, you need twice as much vinegar as oil and four times as much sugar as oil. If you need 2.1 cups of salad dressing, how many cups of sugar do you require?

187) Classic Homes has found from experience that there should be 40% as many two-bedroom homes as three-bedroom homes in a subdivision, and twice as many two-bedroom homes as four-bedroom homes. How many homes of each type should Classic build in a new 96-home subdivision?

188) Broadway Mazda usually spends half as much on radio advertising as on newspaper advertising, and 60% as much on television advertising as on radio advertising. If next year's total advertising budget is $160,000, how much (rounded to the nearest dollar) should be allocated to each form of advertising?

189) A city's commercial construction by-laws require five parking spaces for every 100 square metres of retail rental space in a shopping centre. Four percent of the parking spaces must be large spaces for the physically handicapped. Of the remainder, there must be 40% more regular-size spaces than "small-car" spaces. How many parking spaces of each type are required for a 27,500 square metre shopping centre?

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190) Erin has invested in both an equity mutual fund and a bond mutual fund. Her financial advisor told her that her overall portfolio rose in value by 1.1% last year. Erin noted in the newspaper that the equity fund lost 3.3% last year while the bond fund rose 7.7%. What percentage of her portfolio was in the equity fund at the beginning of the year?

191) Steel is an alloy of iron and nickel. A steel recycling company has two piles of scrap steel. Pile A contains steel with 5.25% nickel content. Pile B contains steel with 2.84% nickel. The company has an order for 32.5 tonnes of steel containing 4.15% nickel. How much scrap steel should be taken from each pile for reprocessing?

192) The board of directors of Meditronics Inc. has designated 100,000 stock options for distribution to employees and management of the company. Each of three executives is to receive 2000 more options than each of eight scientists and engineers. Each scientist and engineer is to receive 50% more options than each of 14 technicians. How many options will a person in each position receive?

193) You can pick and choose ingredients at a local food mart. Vegetable ingredients are $2.00/kg and meat ingredients are $1.00/100 grams. You wish to purchase a stir fry for a party that will weigh 4 kgs. You wish to use three times as much vegetables as meat. How much will the meat portion and vegetable portion cost you?

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194) Dash Canada offers two long-distance telephone plans. Plan X costs 6.5 cents per minute for calls between 8 a.m. and 6 p.m. weekdays (business hours) and 4.5 cents per minute at other times. Plan Y costs 5.3 cents per minute any time. Above what percentage of business-hour usage will Plan Y be cheaper?

195) Quality Grocer makes its own bulk "trail mix" by mixing raisins and peanuts. The wholesale cost of raisins is $3.75 per kg and the cost of peanuts is $2.89 per kg. To the nearest 0.1 kg, what amounts of peanuts and raisins should be mixed to produce 50 kg of trail mix with an effective wholesale cost of $3.20 per kg?

196) A firm received a bill from its accountant for $3310, representing a combined total of 41 "billable" hours for both the Certified General Accountant (CG A) and her accounting technician, for conducting the firm's audit. If the CGA charges her time at $120 per hour and the technician's time at $50 per hour, how many hours did each work on the audit?

197) A lawyer wishes to bring on two new partners. The current partner has a net worth in the company of $500,000. Partner B wishes to bring in 30% of the original partners' capital and partner C will bring 1/3 of partner B's amount. If all partners wish to have a total balance of $800,000, how much extra will need to be raised to reach the goal of $800,000?

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198) Joan, Stella, and Sue have agreed to form a partnership. For the original capital investment of $32,760, Sue agrees to contribute 20% more than Joan, and Joan agrees to contribute 20% more than Stella. How much will each contribute?

199) The annual net income of the SGR partnership is to be distributed so that Sven receives 30% less than George, and Robert receives 25% more than George. If the past year's net income was $88,880, what amount should be allocated to each?

200) It takes 20 minutes of machine time to manufacture Product X and 30 minutes of machine time to manufacture Product Y. If the machine operated 47 hours last week to produce a combined total of 120 units of the two products, how many units of Y were manufactured?

201) The tickets for a hockey game cost $19.00 for the blue section and $25.50 for the red section. If 4460 tickets were sold for a total of $93,450, how many seats were sold in each section?

202) The annual dues for the Southern Pines Golf Club are $2140 for regular members and $856 for student members. If the total revenue from the dues of 583 members for the past year was $942,028, how many members did the club have in each category?

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203) The Hungry Heifer diner offers an all-you-can-eat buffet at $12.95 per adult and $8.95 per child. On a particular day, the diner had total buffet revenue of $3304.70 from 266 customers. How many of the customers were children?

204) Tina drove from Calgary to Vancouver, a distance of 1000 km, in 12.3 hours. She drove at 100 km/h on the "open road," but slowed to 50 km/h on urban and curving roads. What distance did she drive at each speed? (Hint: Travelling time at a particular speed = Distance/Speed)

205) Product X requires 30 minutes of machining on a lathe, and product Y requires 45 minutes of machining. If the lathe was operated for 60.5 hours last week for machining a combined total of 93 units of Products X and Y, how many units of each product were produced?

206) A convenience store sells canned soft drinks at $4.35 for a six-pack or 90 cents for a single can. If revenue from the sale of 225 cans of soft drinks on a weekend was $178.35, how many six-packs and how many single cans were sold?

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207) Mr. Nguyen structured his will so that each of his four children will receive half as much from the proceeds of his estate as his wife, and each of 13 grandchildren will receive one-third as much as each child. After his death, $759,000 remains after expenses and taxes for distribution among his heirs. How much will each child and grandchild receive?

208) To coordinate production in a three-stage manufacturing process, Stage B must be assigned 60% more workers than Stage A. Stage C requires three-quarters as many workers as Stage B. How should the foreman allocate 114 workers among the three stages?

209) Parminder has centralized the purchasing and recordkeeping functions for his three pharmacies in a single office. The annual costs of the office are allocated to the three stores. The Hillside store is charged $1000 less than twice the charge to the Barnett store. The Westside store is charged $2000 more than the Hillside store. What is the charge to the Westside store if the cost of operating the central office for a year is $27,600?

210) $100,000 is to be distributed under a firm's profit-sharing plan. Each of 3 managers is to receive 20% more than each of 26 production workers. How much will each manager and production worker receive?

211) Simplify and collect the like terms: 4(3a + 2 b)(2b - a) - 5a(2a - b)

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212) Simplify and collect the like terms: $\frac{9y-7}{3} - 2.3(y-2)$

213) Simplify and collect the like terms: $P\left(1+0.095\times\frac{135}{365}\right)+\frac{2P}{\left(1+0.095\times\frac{75}{365}\right)}$

214) Simplify and collect the like terms: 6(4y - 3)(2 - 3y) - 3(5 - y)(1 + 4y)

215) Simplify and collect the like terms: $\frac{5b-4}{4} - \frac{25-b}{125} + \frac{7}{8}b$

216) Simplify and collect the like terms: $\frac{x}{1+0.085\times\frac{63}{365}} + 2x\left(1+0.085\times\frac{151}{365}\right)$

217) Simplify: $\frac{96nm^2 \cdot 72n^2m^2}{48n^3m}$

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218) Evaluate the following expression for the given values of the variables: $P(1+i)^n + \frac{S}{1+rt}$ for $P = \$2500, i = 0.1025, n = 2, S = \$1500, r = 0.09, t = \frac{93}{365}$

219) Evaluate the following expression for the given values of the variables: $L(1 - d_1)(1 - d_2)(1 - d_3)$ for L = \$340, $d_1 = 0.15$, $d_2 = 0.08$, $d_3 = 0.05$

220) Evaluate the following expression for the given values of the variables: $\frac{R}{i}\left[1 - \frac{1}{(1+i)^n}\right]$ for R = \$575, i = 0.085, n = 3

221) Simplify: $\frac{(-3x^2)^3(2x^{-2})}{6x^5}$

222) Simplify: $\frac{(-2a^3)^{-2}(4b^4)^{3/2}}{(-2b^3)(0.5a)^3}$

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223) Simplify: $\left(-\frac{2x^2}{3}\right)^{-2}\left(\frac{5^2}{6x^3}\right)\left(-\frac{15}{x^5}\right)^{-1}$

224) Evaluate to six-figure accuracy: $(1.0075)^{24}$

225) Evaluate to six-figure accuracy: $(105)^{1/6} - 1$

226) Evaluate to six-figure accuracy: $\frac{(1+0.0075)^{36}-1}{0.0075}$

227) Evaluate to six-figure accuracy: $\frac{1-(1+0.045)^{-12}}{0.045}$

228) Evaluate to six-figure accuracy: $\frac{(1.00\bar{6})^{240}-1}{0.00\bar{6}}$

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229) Evaluate to six-figure accuracy: $(1+0.025)^{1/3}-1$

230) Solve the following equation accurate to the cent:

$$\frac{2x}{1+013\times\frac{92}{365}}+x\left(1+0.13\times\frac{59}{365}\right)=\$831$$

231) Solve the following equation accurate to the cent: $3x\left(103^{5}\right)+\frac{x}{103^{3}}+x=\frac{\$2500}{103^{2}}$

232) Solve the following equation accurate to the cent: $\frac{x}{108^{3}}+\frac{x}{2}\left(108\right)^{4}=\$850$

233) Solve the following equation accurate to the cent:

$$2x\left(1+0.085\times\frac{77}{365}\right)+\frac{x}{\left(1+0.085\times\frac{132}{365}\right)}=\$156570$$

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234) Use $N = L(1 - d_1)(1 - d_2)(1 - d_3)$ to calculate d_2, if N = \$324.30, L = \$498, $d_1 = 0.20$, $d_3 = 0.075$

235) Use $V_f = V_i(1 + c_1)(1+ c_2)(1 + c_3)$ to calculate c_2, if V_f = \$586.64, V_i = \$500, $c_1 = 0.17$, $c_3 = 0.09$

236) Rearrange $FV = PV(1 + i_1)(1 + i_2)$ to isolate i_1 on the left side.

237) The annual net income of the Todd Bros. partnership is distributed so that Ken receives \$15,000 more than 80% of Hugh's share. How should a net income of \$98,430 be divided between the partners?

238) The profits from a partnership are to be distributed so that Grace receives 20% more than Kajsa, and Mary Anne receives five-eighths as much as Grace. How much should each receive from a total distribution of \$36,000?

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239) Through a calculation (on Canadian Individual Tax Returns) known as the " Old Age Security clawback", an individual receiving Old Age Security (OAS) benefits must repay an increasing portion of these benefits to the federal government as the individual's net income rises beyond a certain threshold. If the OAS clawback is 15% of net income exceeding $68,000, at what amount of net income must a taxpayer repay all $6300 OAS benefits received in the year?

240) During a one-day special, a grocery store sells cucumbers at 98 cents each or four for the price of three. At the end of the day, the store's computer reports that revenue from the sale of 541 cucumbers was $418.46. How many cucumbers were sold on the four-for-three promotion?

241) Simplify: $\left(\frac{3a^3b^2}{a^{-5}b}\right)^4$

242) Simplify: $\left(\frac{3}{2x^2}\right)^2\left(\frac{6x^3}{5^2}\right)\left(-\frac{x}{5}\right)^{-1}$

243) Simplify: $\frac{(-2y)^3(x^4)^{-2}}{(x^{-3})^2(4y)^2}$

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244) <p>Simplify: $\frac{[(x^{1/3})(x^{2/3})x]^{2/3}}{(8x^3)^{2/3}}$

245) A wholesaler sells to retailers at a 27% discount from the suggested retail price. What is the suggested retail price of an item that costs the retailer $100?

246) Tom's wholesale company sells t-shirts with a MSRP of $25.99. If they sell these t-shirts with a discount of 47%, what is the profit to the retailer?

247) Simplify and collect the like terms: 2a - (- a) + 4a - 5a

248) Simplify and collect the like terms: -4x - [-3x + 2(x - 6)]

249) Evaluate the following expression for the given values of the variables: $R\left[\frac{(1+i)^n-1}{i}\right]$ for R = $1200, i = 0.02, n = 6

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250) Simplify: $\frac{(2x^4y^2z^3)^2}{4xyz^2}$

251) Simplify: $x^7 \div x^{-4} \div x^3$

252) Evaluate the following to six-figure accuracy: $\frac{1-(1+0.015)^{-18}}{0.015}$

253) Solve the following equation: $3(x - 6) + 5x - 2(2x - 3) = 0$

254) Solve the following equation: $9x + 10 = -3x + 34$

255) Solve the following equation: $2y - 4 = 4y + 6$

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256) Solve the following equation: $1.5a + 3(4a - 6) = a(1.5)^2$

257) Solve the following equation accurate to the cent: $\frac{x}{(102)^6} + 3x\left(102\right)^4 - \$\,1000 = \frac{\$4000}{(102)^3}$

258) Surinder 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. If Surinder earned $515 last week, what was the value of her sales?

259) Tickets for the end of semester dance sold for $10 if purchased in advance, and $15 if purchased at the door. If 392 tickets were sold for a total of $4280, how many tickets were sold at the door?

260) Omar earns $17.00 per hour for a forty-hour week. His overtime rate is 1½ times any hours exceeding forty in a week. If Omar earned $807.50 last week, how many overtime hours did he work?

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261) Mrs. Singh invested $20,000 in two investments paying 2% and 3% respectively. She earned $460 interest for the year. How much did Mrs. Singh invest at 3%?

262) Mr. Johnson invested $10,000 and earned 7% in year one, -5% in year two and 2% in year three. How much money did he earn in year three in interest?

263) Kristina is in charge of billing for a company that does computer training. She is preparing an invoice for $1340 for 32 hours of work, which includes training at $70 per hour and preparation of a manual at $25 per hour. How many hours of training are included in the invoice?

264) Sunrise Foods is billing a customer for 120 drinks for a meeting. They supplied coffee at $2 per cup and tea at $1 per cup. If the total bill was $200, how many cups of coffee were sold?

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Answer Key

Test name: Chapter 02

1) A
2) B
3) C
4) D
5) E
6) A
7) B
8) C
9) D
10) E
11) C
12) D
13) E
14) A
15) B
16) C
17) D
18) E
19) A
20) B
21) C
22) D
23) E
24) A
25) B
26) C
27) D
28) E
29) A
30) B
31) E
32) E
33) A
34) B
35) C
36) B
37) C

38) D
39) C
40) C
41) E
42) C
43) E
44) B
45) B
46) A
47) B
48) A
49) D
50) D
51) B
52) C
53) A
54) A
55) Short Answer
0

56) Short Answer
3s + 2t

57) Short Answer
$6x^2y$

58) Short Answer
$e^3 - 7e^2 - 3e + 6$

59) Short Answer
$7x^2 + 7xy - 4y^2$

60) Short Answer
$2m^3 - 4m^2 - 4m + 19$

61) Short Answer
8x + 3y

62) Short Answer
$-6a^2 - 10a - 4$

63) Short Answer
25x - 16

64) Short Answer
a + 4b

65) Short Answer
$12a^2b - 20a^2 + 24ab$

66) Short Answer
$36k - 72k^2 + 63k^3$

67) Short Answer
$-10x^3y + 5x^2y^2 + 15xy^3$

68) Short Answer
$-2pq + 8q^2 + 10q$

69) Short Answer
$20r^2 - 7rt - 6t^2$

70) Short Answer
$-12p^3 + 26p^2 - 10p$

71) Short Answer
$2a^2 + 34a + 99$

72) Short Answer
$24x^2 + 25xy - 5y^2$

73) Short Answer
6x

74) Short Answer
$-3\frac{a}{b}$

75) Short Answer
x - y

76) Short Answer

$8 - 20x + 12x^2$

77) Short Answer
$\frac{x^2-2x+3}{4}$

78) Short Answer
16a - 4 + 7b

79) Short Answer
$2ab - 3a^2$

80) Short Answer
$\frac{2(1+i)+3(1+i)^2}{6}$

81) Short Answer
$-1.2x^2 - 0.3x + 1.3$

82) Short Answer
-0.7x + 3.45

83) Short Answer
1.7419x

84) Short Answer
18.8x - 8.5

85) Short Answer
2.8685y

86) Short Answer
3.0509P

87) Short Answer
-2.6243h

88) Short Answer
2.9307k

89) Short Answer

0.093083

90) Short Answer
$1794.22

91) Short Answer
$4687.97

92) Short Answer
$1071.77

93) Short Answer
$864.28

94) Short Answer
a^5

95) Short Answer
x^2

96) Short Answer
b^4

97) Short Answer
h^{11}

98) Short Answer
$(1 + i)^{13}$

99) Short Answer
$(1 + i)^{n + 1}$

100) Short Answer
x^{28}

101) Short Answer
t^2

102) Short Answer
y^9

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103) Short Answer
n^4

104) Short Answer
x^2

105) Short Answer
x^{21}

106) Short Answer
$4(1 + i)^2$

107) Short Answer
$\frac{(1+i)^3}{27i^3}$

108) Short Answer
$\frac{t^3}{2r}$

109) Short Answer
$-4r^{11}$

110) Short Answer
16

111) Short Answer
-9

112) Short Answer
18.5203

113) Short Answer
0.299070

114) Short Answer
1,000,000

115) Short Answer
1.05822

116) Short Answer

1.07006

117) Short Answer
1.24727

118) Short Answer
0.985149

119) Short Answer
1.00990

120) Short Answer
1.00816

121) Short Answer
-4

122) Short Answer
3.16049

123) Short Answer
-0.197531

124) Short Answer
-0.666667

125) Short Answer
20.1569

126) Short Answer
33.9235

127) Short Answer
15.9637

128) Short Answer
28.7312

129) Short Answer
1.00908

130) Short Answer
0.00896339

131) Short Answer
2

132) Short Answer
6

133) Short Answer
43

134) Short Answer
14

135) Short Answer
200

136) Short Answer
350

137) Short Answer
0.5

138) Short Answer
8

139) Short Answer
9

140) Short Answer
8

141) Short Answer
30

142) Short Answer
12

143) Short Answer

$286.66

144) Short Answer
$694.13

145) Short Answer
$699.47

146) Short Answer
$1892.17

147) Short Answer
$391.01

148) Short Answer
$247.79

149) Short Answer
$500.00

150) Short Answer
0.006

151) Short Answer
$3500.00

152) Short Answer
$990.00

153) Short Answer
0.175

154) Short Answer
8

155) Short Answer
$15.00

156) Short Answer
1365

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157) Short Answer
$2400.00

158) Short Answer
0.075

159) Short Answer
0.027

160) Short Answer
$350.00

161) Short Answer
$575.00

162) Short Answer
$t = \frac{I}{Pr}$

163) Short Answer
$i = \frac{PMT}{PV}$

164) Short Answer
$d = 1 - \frac{N}{L}$

165) Short Answer
$CM = \frac{NI + FC}{X}$

166) Short Answer
$X = \frac{NI + FC}{CM}$

167) Short Answer
$r = \frac{S - P}{Pt}$

168) Short Answer
$t = \frac{S - P}{Pr}$

169) Short Answer
$d_1 = 1 - \frac{N}{L(1-d_2)(1-d_3)}$

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170) Short Answer
$d_3 = 1 - \frac{N}{L(1-d_1)(1-d_2)}$

171) Short Answer
$PV = \frac{FV}{(1+i)^n}$

172) Short Answer
0.08

173) Short Answer
0.045

174) Short Answer
$i = \left(\frac{FV}{PV}\right)^{1/n} - 1$

175) Short Answer
2065

176) Short Answer
600

177) Short Answer
$445.00

178) Short Answer
$4.55

179) Short Answer
$870.54

180) Short Answer
$11,800

181) Short Answer
$25.00

182) Short Answer
1627 km

183) Short Answer

$2,600

184) Short Answer
125 ¾ hours

185) Short Answer
$312.50

186) Short Answer
1.2

187) Short Answer
24 two-bedroom; 60 three-bedroom; 12 four-bedroom

188) Short Answer
Radio: $44,444; TV: $26,667; Newspaper: $88,889

189) Short Answer
55 handicapped; 550 small-car; 770 regular

190) Short Answer

60%

191) Short Answer
17.67 tonnes from A; 14.83 tonnes from B

192) Short Answer
Technician: 3082; Scientist and Engineer: 4623; Executive: 6623

193) Short Answer
$10 meat
$6 vegetable

194) Short Answer
40%

195) Short Answer
Peanuts: 32.0 kg; Raisins 18.0 kg

196) Short Answer

CGA: 18 hours; technician: 23 hours

197) Short Answer
$100,000

198) Short Answer
Stella: $9000; Joan: $10,800; Sue: $12,960

199) Short Answer
George: $30,128.81; Robert: $37,661.02; Sven: $21,090.17

200) Short Answer
42

201) Short Answer
Blue: 3120; Red: 1340

202) Short Answer
238 student members and 345 regular members

203) Short Answer

35

204) Short Answer
230 km at 50 km/h; 770 km at 100 km/h

205) Short Answer
37 units of X and 56 units of Y

206) Short Answer
23 six-packs and 87 single cans

207) Short Answer
Each child: $73,451.62 (+/- $0.01); Each grandchild: $24,483.87 (+/- $0.01)

208) Short Answer
Stage A: 30; Stage B: 48; Stage C: 36

209) Short Answer
$12,040

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210) Short Answer
Each worker: $3378.38; Each manager: $4054.05

211) Short Answer
$-22a^2 + 21ab + 16b^2$

212) Short Answer
$0.7y + 22\bar{6}$

213) Short Answer
2.996843P

214) Short Answer
$-60y^2 + 45y - 51$

215) Short Answer
2.925b - 21

216) Short Answer
3.05587x

217) Short Answer
$2\frac{m}{n} - 15m$

218) Short Answer
$4505.14

219) Short Answer
$252.59

220) Short Answer
$1468.56

221) Short Answer
$-\frac{9}{x}$

222) Short Answer
$-\frac{8b^3}{a^9}$

223) Short Answer

$-\frac{5}{8x^2}$

224) Short Answer
1.19641

225) Short Answer
0.00816485

226) Short Answer
41.1527

227) Short Answer
9.11858

228) Short Answer
589.020

229) Short Answer
0.00826484

230) Short Answer
$280.97

231) Short Answer
$436.96

232) Short Answer
$576.63

233) Short Answer
$520.85

234) Short Answer
0.12

235) Short Answer
-0.08

236) Short Answer

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$i_1 = \frac{FV}{PV(1+i_2)} - 1$

237) Short Answer
Hugh: $46,350; Ken: $52,080

238) Short Answer
Kajsa: $12,203.39; Grace: $14,644.07; Mary Anne: $9152.54

239) Short Answer
$110,000

240) Short Answer
456

241) Short Answer
$\frac{81a^{12}b^8}{(a-b)^4}$

242) Short Answer
$-\frac{27}{10x^2}$

243) Short Answer
$-\frac{y}{2x^4}$

244) Short Answer
$\frac{x}{4}$

245) Short Answer
$136.99

246) Short Answer
$13.77

247) Short Answer
2a

248) Short Answer
-3x + 12

249) Short Answer

$7569.75

250) Short Answer
$x^7y^3z^4$

251) Short Answer
x^8

252) Short Answer
15.6726

253) Short Answer
3

254) Short Answer
2

255) Short Answer
-5

256) Short Answer
1.6

257) Short Answer
$1153.32

258) Short Answer
$11,500

259) Short Answer
72

260) Short Answer
5

261) Short Answer
$6000

262) Short Answer
$203.30

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263) Short Answer
12

264) Short Answer
80