

Chapter 01

Whole Numbers: How to Dissect and Solve Word Problems

True / False Questions

1. The problem should be stated in the decision-making process.

True False

2. Commas separate every three digits from left to right.

True False

3. Place value of the hundreds position is to the right of the tens position.

True False

4. 5,986 in verbal is written as five thousand and nine hundred eighty-six.

True False

5. Rounding approximates actual answers.

True False

6. Rounding all the way means there are two nonzero digits left.

True False

7. The first step in rounding is to identify the place value of the digit to be rounded.

True False

8. Rounding up occurs if the digit to the right of the identified digit is 5 or less.

True False

9. 42,515 rounded to the nearest thousand is 43,000.

True False

10. 586 rounded to the nearest ten is 580.

True False

11. 258 rounded all the way is 300.

True False

12. Numbers added together are called sums.

True False

13. The total of addends is called the sum.

True False

14. Adding is always done from bottom to top.

True False

15. The opposite of addition is subtraction.

True False

16. Borrowing in subtraction results in changing positional notation.

True False

17. In subtraction the minuend is the smaller number.

True False

18. 512 minus 285 equals a subtrahend of 227.

True False

19. Multiplication is a shortcut to addition.

True False

20. The multiplicand times the product equals the multiplier.

True False

21. Zeros at the end of the multiplier and/or multiplicand are never attached to the product.

True False

22. 55×100 means attaching two zeros to the number being multiplied.

True False

23. Divisor plus quotient + remainder = dividend.

True False

24. Division is the reverse of multiplication.

True False

25. Short division is rarely done when the divisor is one digit.

True False

Multiple Choice Questions

26. The decision-making process does not involve:

- A. Stating the problem
- B. Deciding on the worst method to solve it
- C. Seeing if the solution makes sense
- D. Evaluating the end result
- E. Deciding on the best method to solve it

27. In the number 49,869 there are how many tens?

- A. 9
- B. 6
- C. 8
- D. 4
- E. 69

28. 9,432 written in verbal is:

- A. nine thousand four hundred two
- B. nine thousand and four hundred thirty-two
- C. nine thousand four hundred twenty-three
- D. nine thousand, four hundred thirty-two
- E. none of these

29. 37,855 rounded to the nearest thousand is:

- A. 40,000
- B. 30,000
- C. 38,000
- D. 37,000
- E. None of these

30. 19,810 rounded to the nearest hundred is:

- A. 20,000
- B. 19,000
- C. 19,700
- D. 19,800
- E. None of these

Survey Questions

31. Round all-the-way 2,689:

- 1. 2,680
- 2. 3,680
- 3. 3,000
- 4. 2,790
- 5. None of these
- 6. Answer: C

Multiple Choice Questions

32. Adding $1,690 + 88 + 410 + 30$ results in a sum of:

- A. 2,182
- B. 2,818
- C. 2,218
- D. 2,188
- E. None of these

33. Subtracting 766 from 941 results in a difference of:

- A. 175
- B. 571
- C. 185
- D. 241
- E. None of these

34. 88,000 times 300 equals:

- A. 264,000
- B. 26,000
- C. 26,400,000
- D. 26,000,000
- E. None of these

35. $97 \times 100,000$ equals:

- A. 9,700
- B. 97,000
- C. 9,700,000
- D. 970,000
- E. None of these

36. 98,000 divided by 4,000 equals:

- A. 420
- B. 240
- C. 2R2
- D. 24R2000
- E. None of these

37. Janet Woo received the following grades in an accounting class at McLennan Community College: 65, 80, 70, 100, 75, and 90. The instructor said he would drop the lowest grade. What is Janet's average?

- A. 81
- B. 83
- C. 84
- D. 82
- E. None of these

38. Lee Co. carpeted its offices, requiring 310 square yards of commercial carpet. The total cost of the carpet at Home Depot was \$10,230. How much did Lee pay per square yard?

- A. \$33
- B. \$34
- C. \$340
- D. \$32
- E. None of these

39. At Best Buy a flat screen television with a regular price of \$1,790 was reduced by \$395. Assuming 800 customers purchased the television, what were the total sales to Best Buy?

- A. \$1,160
- B. \$116,000
- C. \$1,161,000
- D. \$1,116,000
- E. None of these

40. At a General Electric Plant they produced 12,000 jet engines in May. General Electric was able to sell 11,000 of these engines. Calculate the total ending inventory cost assuming each engine cost \$290,000.
- A. \$1,000
 - B. \$290,000,000
 - C. \$2,900,000
 - D. \$920,000,000
 - E. None of these
41. True Value Hardware buys 200 snow blowers for \$90 each to stock the store for the winter. If True Value sells the 200 snow blowers at \$120 each, what is the profit? (sales - cost)
- A. \$60,000
 - B. \$6,000
 - C. \$24,000
 - D. \$18,000
 - E. None of these
42. On Tuesday, Pizza Hut sold 60 plain pizzas at \$5 each; 20 meatball pizzas at \$8 each; 25 Sicilian pizzas at \$9 each; and 33 large crust supremes at \$10 each. What were the total dollar sales for Pizza Hut on Tuesday?
- A. \$790
 - B. \$1,015
 - C. \$1,115
 - D. \$1,511
 - E. None of these
43. Pete Hax rents a ski house in Vail for \$1,800 per month for six months. Assuming Pete spends \$12,955 for the total trip, how much was spent above the renting of the ski house?
- A. \$10,800
 - B. \$18,100
 - C. \$2,155
 - D. \$2,515
 - E. None of these

44. Sally Ray borrowed \$38,000 to buy a new Chevy Volt. Assuming an interest charge of \$4,100, what will be her monthly payment if she takes 25 months to repay the loan interest. Assume the loan is repaid in equal payments.
- A. \$1,520
 - B. \$1,684
 - C. \$1,864
 - D. \$1,250
 - E. None of these
45. Eric Rose wants to buy a Ford Explorer that costs \$26,000 with an interest charge of \$3,000. If there are 50 equal payments required, what will Eric's monthly payment be?
- A. \$580
 - B. \$850
 - C. \$520
 - D. \$250
 - E. None of these
46. Ed Sloan bought 6,000 shares of stock in Ebay Co. After holding the stock for six months, he sold 500 shares on Monday, 220 shares on Tuesday and again on Thursday, and 900 shares on Friday. If the average share of stock he still has is worth \$70 per share, what is the total value of the stock?
- A. \$306,600
 - B. \$291,200
 - C. \$219,200
 - D. \$360,600
 - E. None of these
47. Round all-the-way 2,689:
- A. 2,680
 - B. 3,680
 - C. 3,000
 - D. 2,790
 - E. None of these

48. 47,000 times 400 equals:

- A. 18,800,000
- B. 18,000,000
- C. 18,000,800
- D. 800,000
- E. None of these

49. 708,000 divided by 3,000 equals:

- A. 236
- B. 236 R2
- C. 2360
- D. 23,360
- E. None of these

50. Ace Landscape buys 100 shovels for \$15 each. Ace sells all 100 shovels at \$29.99. What is his profit?

- A. \$1,500
- B. \$2,999
- C. \$1,499
- D. \$1,400
- E. None of these

51. Jeff wants to buy a new Ford Fusion for \$24,200, with shipping costs of \$800 and interest cost of \$1,000. If Jeff pays in 72 equal payments, what will Jeff's monthly payment be?

- A. \$361.11
- B. \$541.67
- C. \$433.33
- D. \$400.00
- E. None of these

Matching Questions

52. Match the following terms with their definitions.

- | | | |
|------------------|--|-------|
| 1. Sum | Numbers combined in adding process. | _____ |
| 2. Whole number | Minuend less subtrahend. | _____ |
| 3. Dividend | Number in the division process that is being divided by another. | _____ |
| 4. Multiplier | Number in the division process that is dividing into another number. | _____ |
| 5. Divisor | Larger number from which another is subtracted. | _____ |
| 6. Remainder | Top number in multiplication problem. | _____ |
| 7. Minuend | Bottom number in a multiplication problem. | _____ |
| 8. Quotient | The answer to a multiplication problem. | _____ |
| 9. Product | The answer to a division problem. | _____ |
| 10. Addend | Amount left over in the division process. | _____ |
| 11. Difference | Smaller number being subtracted from a large number. | _____ |
| 12. Multiplicand | The total of the adding process. | _____ |
| 13. Subtrahend | Doesn't contain a decimal or fraction. | _____ |

Short Answer Questions

53. Express this verbal in number form:

Twelve thousand, nine hundred fifty-three

54. Round to nearest position as indicated:

Nearest Ten

74

55. Round to nearest position as indicated:

Nearest Hundred

792

56. Round to nearest position as indicated:

Nearest Thousand

9,314

57. Estimate by rounding all the way (do not round final answer):

$$\begin{array}{r} 5,817 \\ + 7,500 \\ \hline \end{array}$$

58. Estimate by rounding all the way (do not round final answer):

$$\begin{array}{r} 8,100 \\ + 7,665 \\ \hline \end{array}$$

59. Fill in missing number:

$$\begin{array}{r} 3,910 \\ - \\ \hline 79 \end{array}$$

60. Fill in missing number:

$$\begin{array}{r} 2,188 \\ - \underline{750} \\ \hline \end{array}$$

61. Multiply by shortcut method:
 $130 \times 1,000$

62. Multiply by shortcut method:
 $6,150 \times 10,000$

63. Divide by shortcut method:
 $130,000 \div 1,000 =$

64. Divide by shortcut method:

$$1,600 \div 10 =$$

65. Divide by long division (show work):

$$6,644 \div 181$$

Check

66. Estimated by rounding A. all the way and B. do actual calculation.

$$6,951 \div 81$$

A. Estimate _____

B. Actual _____

67. Ray Company received a shipment of 25 cartons of stereos. In each carton were five stereos. Each stereo sells for \$80 and has a \$30 cost to Ray. Assuming Ray sells all the stereos, what would his profit be?
68. Ron purchased two new Jeep Cherokees for \$22,500 per Jeep. He paid \$3,200 down on each car. What total amount should Ron borrow to pay for the cars?
69. John's Pizza sold \$11,130 worth of pizza for one week. Each pizza sells for \$6. Assuming that each day the same number of pizzas is sold, how many pizzas were sold each day? Assume a seven-day work week.

70. Fleet Center seats 14,500 people. Last night at the Celtics game 13,280 were in attendance. Total attendance for the season was 337,500. Assuming a 25-game home schedule, what is the average attendance per game? If each ticket cost \$18, what would a sellout bring in for revenue for a game?

71. What is the total of the following verbal forms?

Twelve thousand, four hundred eighty-four

Fourteen million, eight

Eleven thousand, six hundred twenty-two

72. Express in verbal 8,732,649

73. Round the following number:

Nearest Ten

65

74. Round the following number:

Nearest Hundred

686

75. Round the following number:

Nearest Thousand

7,108

76. Round the following number:

All the Way

15,915

77. Estimate by rounding all the way, work actual problem, and check by adding each column of digits separately.

1,905

3,755

6,939

A. Actual B. Estimate C. Check

78. A. Estimate by rounding all the way and B. Do actual calculation:

$$\begin{array}{r} 5,218 \\ \times 605 \\ \hline \end{array}$$

79. Multiply by the shortcut method:

$$629,510 \times 1,000$$

80. A. Divide and B. check answer by multiplication:

$$16,192 \div 58$$

81. Divide by the shortcut method:

$$1,500 \div 50$$

82. Peter Broom, who lives in Boston, bought a round-trip ticket to Chicago for \$473. He handed the ticket agent five \$100 bills. What change does Broom receive?

83. Earl Miller plans to buy a boat for \$19,500 with an interest charge of \$2,500. Earl figures he can afford a monthly payment of \$650. If Earl has to pay 36 equal monthly payments, can he afford the boat?

84. In 2012, Peter Royan earned \$66,000 in real estate commissions. If Peter's average commission was \$6,000 per house, how many houses did Peter sell?

85. Art Missan has his oil tank filled 12 times per year. His oil tank has a 300-gallon capacity. Assuming the price of home heating fuel is \$3.00 per gallon and the tank is completely empty each time Art has it filled, what is Art's average monthly bill?
Try to complete blueprint aid to dissecting a word problem.

Oil filled 12 times per year	Average monthly heating bill	Total gallons used times cost per gallon equals total cost of oil	Average monthly bill is total cost divided by 12 months in a year
Tank holds 300 gal			
\$3 per gallon			

86. Express this verbal in number form:
Eighteen thousand, one hundred sixty-five

87. Express this verbal in number form:
Thirty-eight thousand, five hundred three

88. Round to:
Nearest Ten
52

89. Round to:
Nearest Hundred
491

90. Round to:
Nearest Thousand
9,333

91. Round to:
Nearest Ten
84

92. Round to:
Nearest Hundred
671

93. Round to:
Nearest Thousand
6,752

94. Estimate by rounding all the way (do not round final answer):

$$\begin{array}{r} 4,918 \\ +6,500 \\ \hline \end{array}$$

95. Estimate by rounding all the way (do not round final answer);

$$\begin{array}{r} 9,100 \\ +8,555 \\ \hline \end{array}$$

96. Estimate by rounding all the way (do not round final answer):

$$\begin{array}{r} 3,342 \\ +9,581 \\ \hline \end{array}$$

97. Estimate by rounding all the way (do not round final answer):

$$\begin{array}{r} 2,944 \\ +7,653 \\ \hline \end{array}$$

98. Fill in the missing number:

$$\begin{array}{r} 2,950 \\ - \quad \quad \quad \\ \hline 69 \end{array}$$

99. Fill in the missing number:

$$\begin{array}{r} 1,950 \\ - \underline{890} \end{array}$$

100 Fill in the missing number:

$$\begin{array}{r} 1,095 \\ - \underline{\quad\quad} \\ 39 \end{array}$$

101 Fill in the missing number:

$$\begin{array}{r} 9,438 \\ -8,888 \\ \hline \end{array}$$

102 Multiply by shortcut method:

$$. \quad 115 \times 1,000$$

103 Multiply by shortcut method:

$$. \quad 1,815 \times 10,000$$

104 Multiply by shortcut method:

. $525 \times 1,000,000$

105 Multiply by shortcut method.

. $1,650 \times 10,000$

106 Divide by shortcut method:

. $160,000 \div 1,000$

107 Divide by shortcut method:

. $190,000 \div 10,000$

108 Divide by shortcut method:

. $180,000 \div 100$

109 Divide by shortcut method:

. $165,000 \div 1,000$

110 Divide by long division:

. $6,514 \div 191$

Check

111 Divide by long division:

. $6,438 \div 132$

Check

112 Divide by long division:

.

$5,652 \div 17$ A. Est. _____

B. Actual _____

113 Divide by long division:

. $8,241 \div 12$ A. Estimate _____
B. Actual _____

114 Regan College had 30 teachers in the Business Department on January 1, 2011. During the year, 18 more teachers were hired. Five of the old teachers have retired. What is the total number of teachers currently employed in the Business Department at Regan College?

115 Al Flow rents a luxurious condominium for \$14,004 for six months. What is the rental charge per month that Al pays?

116 Abe Real Estate is developing 15 solar homes per state in 25 states. If the cost of each home is estimated at \$80,000, what is the projected cost for the entire development?

117 Al Flynn wants to buy a van that costs \$16,000 with an interest charge of \$2,000. Al figures he can afford a monthly payment of \$700 per month. If there are 24 equal payments required, can Al afford the van? Show your work.

118 Al's Hardware buys 200 lawn mowers for \$50 each to stock the store for spring. If Al sells the 200 lawn mowers at \$80 each, what is his profit? (sales - cost)

119 A pocket calculator has a retail selling price of \$12. The price has been reduced to \$7. Bill purchases a calculator, handing the clerk a \$100 bill. What change does Bill receive?

120 Mary Ross drove 1,064 miles. Her gas tank holds 28 gallons. How many miles per gallon did Mary's car get?

121 John Sullivan earned \$101,250 selling real estate in 2012. If his average commission was \$3,750 per unit sold, how many pieces of property did John sell?

122 Al Ring, Martha Wright, and Jim Brewer wrote a text called *Principles of Math*. The royalties on the book are to be split equally. Total royalties earned for the year are \$9,936. How much is author each entitled to?

123 The oil tank of Bev O'Callahan's home is filled 12 times per year. The oil tank has a capacity of 144 gallons. Assuming the price of home heating fuel is \$2 per gallon, how much did Bev spend on oil heat for the year? What is the average monthly heating bill?

124 The Convention and Visitor's Bureau of the Missouri State Prison saw an increase in visitors from 3,290 in 2009 to 17,200 in 2011. How many more visitors did they see in 2011?

125 Tom traveled with his son Jeff to Branford, CT, by car and flew back at a cost of \$443. He handed the ticket agent a \$1,000 traveler's check. How much will Tom get back?

126 Round to:

. Nearest Hundred
18,932

127 The price of gas is \$3.59 per gallon in Florida, well below the average price in California of \$4.37 per gallon. If your Ford Taurus has a 20-gallon tank, assuming you are on empty, how much more will you pay for gas in California?

128 Katy purchased 100 shares of Facebook's IPO @ \$38.00 a share. One year later she sold it all for \$50 a share. What was her total gain?

Chapter 01 Whole Numbers: How to Dissect and Solve Word Problems

Answer Key

True / False Questions

1. The problem should be stated in the decision-making process.

TRUE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember

Learning Objective: 01-01 (3) Use blueprint aid for dissecting and solving a word problem

Level of Difficulty: 1 Basic

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

2. Commas separate every three digits from left to right.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Level of Difficulty: 1 Basic

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

3. Place value of the hundreds position is to the right of the tens position.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Level of Difficulty: 1 Basic

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

4. 5,986 in verbal is written as five thousand and nine hundred eighty-six.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

5. Rounding approximates actual answers.

TRUE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Level of Difficulty: 1 Basic

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

6. Rounding all the way means there are two nonzero digits left.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Level of Difficulty: 1 Basic

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

7. The first step in rounding is to identify the place value of the digit to be rounded.

TRUE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Level of Difficulty: 1 Basic

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

8. Rounding up occurs if the digit to the right of the identified digit is 5 or less.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

9. 42,515 rounded to the nearest thousand is 43,000.

TRUE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

10. 586 rounded to the nearest ten is 580.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

11. 258 rounded all the way is 300.

TRUE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

12. Numbers added together are called sums.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

13. The total of addends is called the sum.

TRUE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

14. Adding is always done from bottom to top.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

15. The opposite of addition is subtraction.

TRUE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

16. Borrowing in subtraction results in changing positional notation.

TRUE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

17. In subtraction the minuend is the smaller number.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

18. 512 minus 285 equals a subtrahend of 227.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

19. Multiplication is a shortcut to addition.

TRUE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

20. The multiplicand times the product equals the multiplier.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

21. Zeros at the end of the multiplier and/or multiplicand are never attached to the product.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

22. 55×100 means attaching two zeros to the number being multiplied.

TRUE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

23. Divisor plus quotient + remainder = dividend.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

24. Division is the reverse of multiplication.

TRUE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

25. Short division is rarely done when the divisor is one digit.

FALSE

Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

Multiple Choice Questions

26. The decision-making process does not involve:

- A. Stating the problem
- B.** Deciding on the worst method to solve it
- C. Seeing if the solution makes sense
- D. Evaluating the end result
- E. Deciding on the best method to solve it

Review your notes on terminology and vocabulary related to this material

Blooms: Understand
Learning Objective: 01-01 (3) Use blueprint aid for dissecting and solving a word problem
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

27. In the number 49,869 there are how many tens?

- A. 9
- B. 6**
- C. 8
- D. 4
- E. 69

Look at the second position from the right

Blooms: Understand

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Level of Difficulty: 1 Basic

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

28. 9,432 written in verbal is:

- A. nine thousand four hundred two
- B. nine thousand and four hundred thirty-two
- C. nine thousand four hundred twenty-three
- D. nine thousand, four hundred thirty-two**
- E. none of these

Express each digit in the number separately with its correct place value

Blooms: Understand

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Level of Difficulty: 1 Basic

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

29. 37,855 rounded to the nearest thousand is:

- A. 40,000
- B. 30,000
- C. 38,000**
- D. 37,000
- E. None of these

7,855 is closer to 8,000 than to 7,000

Blooms: Understand

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

30. 19,810 rounded to the nearest hundred is:

- A. 20,000
- B. 19,000
- C. 19,700
- D. 19,800**
- E. None of these

810 is closer to 800 than to 900

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

Survey Questions

31. Round all-the-way 2,689:

- 1. 2,680
- 2. 3,680
- 3. 3,000
- 4. 2,790
- 5. None of these
- 6. Answer: C

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

Multiple Choice Questions

32. Adding $1,690 + 88 + 410 + 30$ results in a sum of:

- A. 2,182
- B. 2,818
- C. 2,218**
- D. 2,188
- E. None of these

The equation adds up to 2,218

Blooms: Understand

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

33. Subtracting 766 from 941 results in a difference of:

- A. 175**
- B. 571
- C. 185
- D. 241
- E. None of these

Check your work by adding 175 and 766

Blooms: Understand

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

34. 88,000 times 300 equals:

- A. 264,000
- B. 26,000
- C. 26,400,000**
- D. 26,000,000
- E. None of these

3 times 88 equals 264; then place the five zeros

Blooms: Understand

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

35. $97 \times 100,000$ equals:

- A. 9,700
- B. 97,000
- C. 9,700,000**
- D. 970,000
- E. None of these

1 times 97 equals 97; now include the five zeros

Blooms: Understand
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

36. 98,000 divided by 4,000 equals:

- A. 420
- B. 240
- C. 2R2
- D. 24R2000**
- E. None of these

Cancel out the three zeros, 4 times 24 equals 96, leaving 2 extra (remember to factor the three zeros back into the remainder).

Blooms: Understand
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

37. Janet Woo received the following grades in an accounting class at McLennan Community College: 65, 80, 70, 100, 75, and 90. The instructor said he would drop the lowest grade. What is Janet's average?

A. 81
B. 83
C. 84
D. 82
E. None of these

Add the five largest values and divide that sum by 5

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

38. Lee Co. carpeted its offices, requiring 310 square yards of commercial carpet. The total cost of the carpet at Home Depot was \$10,230. How much did Lee pay per square yard?

A. \$33
B. \$34
C. \$340
D. \$32
E. None of these

Take the total cost of \$10,230 and divide by 310

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

39. At Best Buy a flat screen television with a regular price of \$1,790 was reduced by \$395. Assuming 800 customers purchased the television, what were the total sales to Best Buy?

A. \$1,160
B. \$116,000
C. \$1,161,000
D. \$1,116,000
E. None of these

Subtract 395 from 1,790, then multiply by 800

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

40. At a General Electric Plant they produced 12,000 jet engines in May. General Electric was able to sell 11,000 of these engines. Calculate the total ending inventory cost assuming each engine cost \$290,000.

A. \$1,000
B. \$290,000,000
C. \$2,900,000
D. \$920,000,000
E. None of these

The difference is 1,000. Multiply this by \$290,000 and you get the same value with three more zeros

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

41. True Value Hardware buys 200 snow blowers for \$90 each to stock the store for the winter. If True Value sells the 200 snow blowers at \$120 each, what is the profit? (sales - cost)
- A. \$60,000
 - B. \$6,000**
 - C. \$24,000
 - D. \$18,000
 - E. None of these

Find the difference between 120 and 90, which is 30, and multiply that by 200

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

42. On Tuesday, Pizza Hut sold 60 plain pizzas at \$5 each; 20 meatball pizzas at \$8 each; 25 Sicilian pizzas at \$9 each; and 33 large crust supremes at \$10 each. What were the total dollar sales for Pizza Hut on Tuesday?
- A. \$790
 - B. \$1,015**
 - C. \$1,115
 - D. \$1,511
 - E. None of these

Multiply each item count by the item price and total those values

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

43. Pete Hax rents a ski house in Vail for \$1,800 per month for six months. Assuming Pete spends \$12,955 for the total trip, how much was spent above the renting of the ski house?

A. \$10,800
B. \$18,100
C. \$2,155
D. \$2,515
E. None of these

Multiply 1,800 by 6 and subtract that value from \$12,955

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

44. Sally Ray borrowed \$38,000 to buy a new Chevy Volt. Assuming an interest charge of \$4,100, what will be her monthly payment if she takes 25 months to repay the loan interest. Assume the loan is repaid in equal payments.

A. \$1,520
B. \$1,684
C. \$1,864
D. \$1,250
E. None of these

Add the amount borrowed and the interest charge and divide that total by 25

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

45. Eric Rose wants to buy a Ford Explorer that costs \$26,000 with an interest charge of \$3,000. If there are 50 equal payments required, what will Eric's monthly payment be?

A. \$580
B. \$850
C. \$520
D. \$250
E. None of these

Add the amount borrowed and the interest charge and divide that total by 50

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

46. Ed Sloan bought 6,000 shares of stock in Ebay Co. After holding the stock for six months, he sold 500 shares on Monday, 220 shares on Tuesday and again on Thursday, and 900 shares on Friday. If the average share of stock he still has is worth \$70 per share, what is the total value of the stock?

A. \$306,600
B. \$291,200
C. \$219,200
D. \$360,600
E. None of these

$6,000 - 500 - 220 - 220 - 900 = 4,160$. Multiply that sum by 70

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

47. Round all-the-way 2,689:

- A. 2,680
- B. 3,680
- C. 3,000**
- D. 2,790
- E. None of these

Identified digit is 2, the number to the right is five or higher so you round up to 3 and add zeros, 3,000.

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-02: Rounding Whole Numbers

48. 47,000 times 400 equals:

- A. 18,800,000**
- B. 18,000,000
- C. 18,000,800
- D. 800,000
- E. None of these

Align the multiplicand (top number) and multiplier (bottom number) at the right. Multiply the right digit of the multiplier with the right digit of the multiplicand. Keep multiplying as you move left through the multiplicand. Once you have finished multiplying the right digit of the multiplier, continue to move left through the multiplier as you multiply it with the multiplicand.

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying Whole Numbers

49. 708,000 divided by 3,000 equals:

- A. 236
- B. 236 R2
- C. 2360
- D. 23,360
- E. None of these

When the dividend and divisor have ending zeros, count the number of ending zeros in the divisor. Drop the same number of zeros in the dividend as in the divisor, counting from right to left.

Blooms: Apply

Learning Objective: 01-03 (2) Multiply and divide whole numbers

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Dividing Whole Numbers

50. Ace Landscape buys 100 shovels for \$15 each. Ace sells all 100 shovels at \$29.99. What is his profit?

- A. \$1,500
- B. \$2,999
- C. \$1,499
- D. \$1,400
- E. None of these

$100 \times \$15 = \$1,500$. $100 \times \$29.99 = \$2,999$. $\$2,999 - \$1,500 = \$1,499$.

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying Whole Numbers

51. Jeff wants to buy a new Ford Fusion for \$24,200, with shipping costs of \$800 and interest cost of \$1,000. If Jeff pays in 72 equal payments, what will Jeff's monthly payment be?

- A. \$361.11
- B. \$541.67
- C. \$433.33
- D. \$400.00
- E. None of these

$$\$24,200 + \$800 + \$1,000 = \$26,000. \$26,000/72 = \$361.11.$$

Blooms: Apply

Learning Objective: 01-03 (2) Multiply and divide whole numbers

Level of Difficulty: 3 Challenge

Topic Area: LU 01-03: Multiplying Whole Numbers

Matching Questions

52. Match the following terms with their definitions.

- | | | |
|------------------|--|-----------|
| 1. Sum | Numbers combined in adding process. | <u>10</u> |
| 2. Whole number | Minuend less subtrahend. | <u>11</u> |
| 3. Dividend | Number in the division process that is being divided by another. | <u>3</u> |
| 4. Multiplier | Number in the division process that is dividing into another number. | <u>5</u> |
| 5. Divisor | Larger number from which another is subtracted. | <u>7</u> |
| 6. Remainder | Top number in multiplication problem. | <u>12</u> |
| 7. Minuend | Bottom number in a multiplication problem. | <u>4</u> |
| 8. Quotient | The answer to a multiplication problem. | <u>9</u> |
| 9. Product | The answer to a division problem. | <u>8</u> |
| 10. Addend | Amount left over in the division process. | <u>6</u> |
| 11. Difference | Smaller number being subtracted from a large number. | <u>13</u> |
| 12. Multiplicand | The total of the adding process. | <u>1</u> |
| 13. Subtrahend | Doesn't contain a decimal or fraction. | <u>2</u> |

Blooms: Remember

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Learning Objective: 01-02 (2) Subtract whole numbers; check and estimate subtraction computations

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Short Answer Questions

53. Express this verbal in number form:
Twelve thousand, nine hundred fifty-three

12,953

Feedback: Express each digit in the number separately with its correct place value

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

54. Round to nearest position as indicated:
Nearest Ten
74

70

Feedback: 74 is closer to 70 than to 80

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

55. Round to nearest position as indicated:
Nearest Hundred
792

800

Feedback: 792 is closer to 800 than to 700

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

56. Round to nearest position as indicated:
Nearest Thousand
9,314

9,000

Feedback: 9,314 is closer to 9,000 than to 10,000

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

57. Estimate by rounding all the way (do not round final answer):

$$\begin{array}{r} 5,817 \\ +7,500 \\ \hline \end{array}$$

14,000 (6,000 + 8,000)

Feedback: Rounding all the way means to round to the largest place value shown

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

58. Estimate by rounding all the way (do not round final answer):

$$\begin{array}{r} 8,100 \\ + 7,665 \\ \hline \end{array}$$

16,000 (8,000 + 8,000)

Feedback: Rounding all the way means to round to the largest place value shown

Blooms: Understand

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

59. Fill in missing number:

$$\begin{array}{r} 3,910 \\ - \\ \hline 79 \end{array}$$

3,831

Feedback: Subtract the shown difference, 79, from the minuend, 3,910

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

60. Fill in missing number:

$$\begin{array}{r} 2,188 \\ - \underline{750} \end{array}$$

1,438

Feedback: 2,188 - 750 equals 1,438

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

61. Multiply by shortcut method:

$$130 \times 1,000$$

130,000

Feedback: 1 times 13 is 13, then attach the four zeros at the end

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

62. Multiply by shortcut method:

$$6,150 \times 10,000$$

61,500,000

Feedback: Attach five zeros to 615

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

63. Divide by shortcut method:
 $130,000 \div 1,000 =$

130

Feedback: Remove the three common zeros from 130,000 to get 130

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

64. Divide by shortcut method:
 $1,600 \div 10 =$

160

Feedback: Remove the one common zero from 1,600 to get 160

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

65. Divide by long division (show work):
 $6,644 \div 181$
Check

36 R128

Feedback: 6644 divided by 181 is 36 R 128

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

66. Estimated by rounding A. all the way and B. do actual calculation.
 $6,951 \div 81$

A. Estimate _____

B. Actual _____

A. is 87 R40; B. is 85 R66

Feedback: 7,000 divided by 80 is 87 with 40 left over. 6,951 divided by 81 is 85 with 66 left over

Blooms: Apply

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

67. Ray Company received a shipment of 25 cartons of stereos. In each carton were five stereos. Each stereo sells for \$80 and has a \$30 cost to Ray. Assuming Ray sells all the stereos, what would his profit be?

\$6,250

Feedback: Determine the total number of stereos by multiplying the number of cartons by the number of stereos in each carton. Find the difference between the cost and the sale price and multiply that difference by the total number of stereos
 $25 \times 5 = 125$, $80 - 30 = 50$, $125 \times 50 = 6250$ profit

Blooms: Analyze

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

68. Ron purchased two new Jeep Cherokees for \$22,500 per Jeep. He paid \$3,200 down on each car. What total amount should Ron borrow to pay for the cars?

\$38, 600

Feedback: $22,500 \times 2 = 45,000 - 6400 = 38,600$

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

69. John's Pizza sold \$11,130 worth of pizza for one week. Each pizza sells for \$6. Assuming that each day the same number of pizzas is sold, how many pizzas were sold each day? Assume a seven-day work week.

265 pizzas

Feedback: Take the total sales amount divided by the sale price and then divide by the number of days in the week.

$11,130/6 = 1855/7 = 265$

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

70. Fleet Center seats 14,500 people. Last night at the Celtics game 13,280 were in attendance. Total attendance for the season was 337,500. Assuming a 25-game home schedule, what is the average attendance per game? If each ticket cost \$18, what would a sellout bring in for revenue for a game?

\$261,000

Feedback: The average attendance would be the total season attendance divided by the 25 home games. The revenue for a sellout game would be the total capacity times the ticket price.

$$337,500/25 = 13,500; 14,500 \times 18 = \$261,000$$

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

71. What is the total of the following verbal forms?
Twelve thousand, four hundred eighty-four
Fourteen million, eight
Eleven thousand, six hundred twenty-two

14,024,114

Feedback: $12,484 + 14,000,008 + 11,622 = 14,024,114$

Blooms: Apply

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

72. Express in verbal 8,732,649

Eight million, seven hundred thirty-two thousand, six hundred forty-nine

Feedback: Express each digit in the number separately with its correct place value

Blooms: Apply

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

73. Round the following number:
Nearest Ten
65

70

Feedback: The 5 in 65 forces the nearest 10 to 70

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

74. Round the following number:
Nearest Hundred
686

700

Feedback: 686 is closer to 700 than to 600

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

75. Round the following number:
Nearest Thousand
7,108

7,000

Feedback: 7,108 is closer to 7,000 than to 8,000

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

76. Round the following number:
All the Way
15,915

20,000

Feedback: The 9 in 15,915 forces the 5 to be rounded up to 6. 16,000 is closer to 20,000 than to 10,000.

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

77. Estimate by rounding all the way, work actual problem, and check by adding each column of digits separately.

1,905
3,755
6,939

A. Actual B. Estimate C. Check

A.	1,905	B.	2,000	C.	19
	3,755		4,000		8
	<u>6,939</u>		<u>7,000</u>		25
	12,599		13,000		<u>10</u>
					12,599

Feedback: The estimate, rounded all the way, equals 2,000 + 4,000 + 7,000. The actual resulting sum is 12,599, which is closer to 13,000 than to 12,000, as noted in the estimate

Blooms: Apply
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

78. A. Estimate by rounding all the way and B. Do actual calculation:

$$\begin{array}{r} 5,218 \\ \times 605 \\ \hline \end{array}$$

(A) 5,000	(B) 5,218
$\times 600$	$\times 605$
3,000,000	26,090
	<u>3 130 80</u>
	3,156,890

Feedback: The actual answer should be close to the estimate of 3,000,000, which is the result of $5,000 \times 600$

Blooms: Apply

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

79. Multiply by the shortcut method:

$$629,510 \times 1,000$$

629,510,000 (attach three zeros)

Feedback: Attach three zeros to 629,510

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

80. A. Divide and B. check answer by multiplication:
 $16,192 \div 58$

$ \begin{array}{r} 279R10 \\ 58 \overline{) 16,192} \\ \underline{116} \\ 459 \\ \underline{406} \\ 532 \\ \underline{522} \\ 10 \end{array} $	$ \begin{array}{r} B. 279 \\ \times 58 \\ \hline 2232 \\ 1395 \\ \hline 16,182 \\ + 10 \\ \hline 16,192 \end{array} $
--	---

Feedback: 16,192 divided by 58 is 279 with 10 left over

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

81. Divide by the shortcut method:
 $1,500 \div 50$

$$1,500 \div 50 = 30 \text{ (} 150 \div 5 \text{)}$$

Feedback: Discard the common zero and divide 150 by 50 to get 30

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

82. Peter Broom, who lives in Boston, bought a round-trip ticket to Chicago for \$473. He handed the ticket agent five \$100 bills. What change does Broom receive?

$$\$500 - \$473 = \$27$$

Feedback: Multiply the five by 100 before subtracting the \$473

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

83. Earl Miller plans to buy a boat for \$19,500 with an interest charge of \$2,500. Earl figures he can afford a monthly payment of \$650. If Earl has to pay 36 equal monthly payments, can he afford the boat?

$$\$19,500 + \$2,500 = 22,000$$

$$22,000/36 = 611.11$$

Yes, he can afford the payments

Feedback: Add the amount borrowed and the interest charge and divide that total by 36. Determine if that amount is less than \$650.

Blooms: Analyze

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

84. In 2012, Peter Royan earned \$66,000 in real estate commissions. If Peter's average commission was \$6,000 per house, how many houses did Peter sell?

$$\$66,000 \div \$6,000 = 11 \text{ houses}$$

Feedback: Remove the three common zeros and divide 66 by 6

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

85. Art Missan has his oil tank filled 12 times per year. His oil tank has a 300-gallon capacity. Assuming the price of home heating fuel is \$3.00 per gallon and the tank is completely empty each time Art has it filled, what is Art's average monthly bill?
Try to complete blueprint aid to dissecting a word problem.

Oil filled 12 times per year	Average monthly heating bill	Total gallons used times cost per gallon equals total cost of oil	Average monthly bill is total cost divided by 12 months in a year
Tank holds 300 gal			
\$3 per gallon			

Steps

1. Calculate total gallons used $300 \times 12 = 3,600$
2. Calculate total cost of oil 3,600 gal. $\times \$3 = \$10,800$
3. Calculate average monthly bill $\$10,800/12 = \900

Feedback: Set up the blueprint to show the facts, the average, the steps, and the key points.
 300×12 is 3,600. 3,600 times 3 is \$10,800. \$10,800 divided by 12 is \$900

Blooms: Apply

Learning Objective: 01-01 (3) Use blueprint aid for dissecting and solving a word problem

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

86. Express this verbal in number form:
Eighteen thousand, one hundred sixty-five

18,165

Feedback: Express each digit in the number separately with its correct place value

Blooms: Understand

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Level of Difficulty: 1 Basic

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

87. Express this verbal in number form:
Thirty-eight thousand, five hundred three

38,503

Feedback: Express each digit in the number separately with its correct place value

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 1 Basic
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

88. Round to:
Nearest Ten
52

50

Feedback: 52 is closer to 50 than to 60

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

89. Round to:
Nearest Hundred
491

500

Feedback: 491 is closer to 500 than to 400

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

90. Round to:
Nearest Thousand
9,333

9,000

Feedback: 9,333 is closer to 9,000 than to 10,000

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

91. Round to:
Nearest Ten
84

80

Feedback: 84 is closer to 80 than to 90

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

92. Round to:
Nearest Hundred
671

700

Feedback: 671 is closer to 700 than to 600

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

93. Round to:
Nearest Thousand
6,752

7,000

Feedback: 6,752 is closer to 7,000 than to 6,000

Blooms: Understand
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

94. Estimate by rounding all the way (do not round final answer):

$$\begin{array}{r} 4,918 \\ +6,500 \\ \hline \end{array}$$

12,000 (5,000 + 7,000)

Feedback: 4,918 rounds to 5,000 and 6,500 rounds to 7,000 because of the 5 in the hundreds place. $5,000 + 7,000 = 12,000$

Blooms: Apply
Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers
Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

95. Estimate by rounding all the way (do not round final answer);

$$\begin{array}{r} 9,100 \\ +8,555 \\ \hline \end{array}$$

18,000 (9,000 + 9,000)

Feedback: 9,100 rounds to 9,000, and 8,555 rounds to 9,000. This adds up to 18,000

Blooms: Apply

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

96. Estimate by rounding all the way (do not round final answer);

$$\begin{array}{r} 3,342 \\ +9,581 \\ \hline \end{array}$$

13,000

Feedback: 3,342 rounds to 3,000, and 9,581 rounds to 10,000. This adds up to 13,000

Blooms: Apply

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

97. Estimate by rounding all the way (do not round final answer):

$$\begin{array}{r} 2,944 \\ +7,653 \\ \hline \end{array}$$

11,000

Feedback: 2944 rounds to 3000 and 7653 rounds to 8000. This adds to 11,000.

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

98. Fill in the missing number:

$$\begin{array}{r} 2,950 \\ - \quad \quad \\ \hline 69 \end{array}$$

2,881

Feedback: Subtract 69 from 2,950

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

99. Fill in the missing number:

$$\begin{array}{r} 1,950 \\ - 890 \\ \hline \end{array}$$

1,060

Feedback: The difference from subtracting 890 from 1,950 is 1,060

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

100. Fill in the missing number:

$$\begin{array}{r} 1,095 \\ - \\ \hline 39 \end{array}$$

1,056

Feedback: Subtract 39 from 1,095

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

101. Fill in the missing number:

$$\begin{array}{r} 9,438 \\ -8,888 \\ \hline \end{array}$$

550

Feedback: 9,438 minus 8,888 is 550

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

102. Multiply by shortcut method:

$$115 \times 1,000$$

115,000 (115 + 3 zeros)

Feedback: Attach three zeros to 115

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

103. Multiply by shortcut method:

$$1,815 \times 10,000$$

18,150,000 (1,815 + 4 zeros)

Feedback: Attach four zeros to 1,815

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

104. Multiply by shortcut method:
 $525 \times 1,000,000$

525,000,000 (525 + 6 zeros)

Feedback: Attach six zeros to 525

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

105. Multiply by shortcut method.
 $1,650 \times 10,000$

16,500,000 (1,650 + 4 zeros)

Feedback: Attach four zeros to 1,650

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

106. Divide by shortcut method:
 $160,000 \div 1,000$

160

Feedback: Remove three zeros from 160,000

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

107. Divide by shortcut method:
 $190,000 \div 10,000$

19

Feedback: Remove four zeros from 190,000

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

108. Divide by shortcut method:
 $180,000 \div 100$

1,800 (drop 2 zeros)

Feedback: Remove two zeros from 180,000

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

109. Divide by shortcut method:
 $165,000 \div 1,000$

165 (drop 3 zeros)

Feedback: Remove three zeros from 165,000

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

110. Divide by long division:
 $6,514 \div 191$
 Check

$ \begin{array}{r} 34 \text{ R}20 \\ 191 \overline{) 6,514} \\ \underline{573} \\ 784 \\ \underline{764} \\ 20 \end{array} $	$ \begin{array}{r} 191 \\ \times 34 \\ \hline 764 \\ 573 \\ \hline 6,494 \\ + 20 \\ \hline 6,514 \end{array} $
--	---

Feedback: 6,514 divided by 191 equals 34 with a remainder of 20

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

111. Divide by long division:
 $6,438 \div 132$
 Check

$ \begin{array}{r} 48 \text{ R}102 \\ 132 \overline{) 6,438} \\ \underline{528} \\ 1158 \\ \underline{1056} \\ 102 \end{array} $	$ \begin{array}{r} 132 \\ \times 48 \\ \hline 1,056 \\ 528 \\ \hline 6,336 \\ + 102 \\ \hline 6,438 \end{array} $
--	--

Feedback: 6,438 divided by 132 equals 48 with a remainder of 102

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

112. Divide by long division:

5,652 ÷ 17 A. Est. _____
 B. Actual _____

A. 300
$$\begin{array}{r} 300 \\ 20 \overline{) 6,000} \end{array}$$

B. 332 R8
$$\begin{array}{r} 332R8 \\ 17 \overline{) 5,652} \\ \underline{51} \\ 55 \\ \underline{51} \\ 42 \\ \underline{34} \\ 8 \end{array}$$

Feedback: Estimate by dividing 6,000 by 20. 5,652 divided by 17 equals 332 with a remainder of 8

Blooms: Apply

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

113. Divide by long division:

$$8,241 \div 12 \quad \text{A. Estimate } \underline{\hspace{2cm}}$$

$$\quad \quad \quad \text{B. Actual } \underline{\hspace{2cm}}$$

$$\text{A. } 800 \quad 10 \overline{) 8,000} \quad 800$$

$$\text{B. } 686 \text{ R}9 \quad 12 \overline{) 8,241} \quad 686 \text{ R}9$$

$$\quad \quad \quad \begin{array}{r} 72 \\ 104 \\ \underline{96} \\ 81 \\ \underline{72} \\ 9 \end{array}$$

Feedback: Estimate by dividing 8,000 by 10. 8,241 divided by 12 equals 686 with a remainder of 9

Blooms: Apply

Learning Objective: 01-01 (1) Use place values to read and write numeric and verbal whole numbers

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

114. Regan College had 30 teachers in the Business Department on January 1, 2011. During the year, 18 more teachers were hired. Five of the old teachers have retired. What is the total number of teachers currently employed in the Business Department at Regan College?

$$30 + 18 = 48 - 5 = 43 \text{ teachers}$$

Feedback: Find the total number by adding 30 to the number hired and then subtracting the number who retired

Blooms: Apply

Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations

Level of Difficulty: 1 Basic

115. Al Flow rents a luxurious condominium for \$14,004 for six months. What is the rental charge per month that Al pays?

$$\$14,004 \div 6 = \$2,334$$

Feedback: Take the total rental cost and divide by 6

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

116. Abe Real Estate is developing 15 solar homes per state in 25 states. If the cost of each home is estimated at \$80,000, what is the projected cost for the entire development?

$$25 \times 15 = 375 \times \$80,000 = \$30,000,000$$

Feedback: Find the total number of homes by multiplying the number of homes per state by the number of states in the project. Then multiply that total by the estimated cost to build each home

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

117. Al Flynn wants to buy a van that costs \$16,000 with an interest charge of \$2,000. Al figures he can afford a monthly payment of \$700 per month. If there are 24 equal payments required, can Al afford the van? Show your work.

$$\$18,000 \div 24 = \$750$$

No, Al cannot afford the van, which costs \$50 per month too much.

Feedback: Add the amount borrowed and the interest charge and divide that total by 24.

Determine if that amount is less than \$700

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

118. Al's Hardware buys 200 lawn mowers for \$50 each to stock the store for spring. If Al sells the 200 lawn mowers at \$80 each, what is his profit? (sales - cost)

$$\begin{array}{r} 200 \times \$80 = \$ \quad 16,000 \\ 200 \times \$50 = \quad \underline{10,000} \\ \text{Profit } \$ \quad \quad 6,000 \end{array}$$

Feedback: Find the difference between the purchase price and the sales price and multiply by the number purchased

Blooms: Apply
Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-02: Adding and Subtracting Whole Numbers
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

119. A pocket calculator has a retail selling price of \$12. The price has been reduced to \$7. Bill purchases a calculator, handing the clerk a \$100 bill. What change does Bill receive?

$$\$100 - \$7 = \$93$$

Feedback: The original selling price is irrelevant. Subtract the sales price from the amount handed to the clerk

Blooms: Apply
Learning Objective: 01-02 (1) Add whole numbers; check and estimate addition computations
Level of Difficulty: 1 Basic
Topic Area: LU 01-02: Adding and Subtracting Whole Numbers

120. Mary Ross drove 1,064 miles. Her gas tank holds 28 gallons. How many miles per gallon did Mary's car get?

$$1,064 \div 28 = 38 \text{ miles per gallon}$$

Feedback: Divide the total miles driven by the number of gallons held in the tank

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

121. John Sullivan earned \$101,250 selling real estate in 2012. If his average commission was \$3,750 per unit sold, how many pieces of property did John sell?

$$101,250 \div 3,750 = 27$$

Feedback: Divide the total sales earnings by the number of properties sold

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

122. Al Ring, Martha Wright, and Jim Brewer wrote a text called *Principles of Math*. The royalties on the book are to be split equally. Total royalties earned for the year are \$9,936. How much is author each entitled to?

$$9,936 \div 3 = 3,312$$

Feedback: Divide the total royalties earned by the number of authors [3]

Blooms: Apply
Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations
Level of Difficulty: 2 Intermediate
Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

123. The oil tank of Bev O'Callahan's home is filled 12 times per year. The oil tank has a capacity of 144 gallons. Assuming the price of home heating fuel is \$2 per gallon, how much did Bev spend on oil heat for the year? What is the average monthly heating bill?

$$144 \times 12 = 1,728 \text{ (gallons)} \times \$2 = \$3,456$$
$$\$3,456 \div 12 \text{ months} = \$288 \text{ per month}$$

Feedback: Multiply the tank capacity by the number of times it is filled [12] and by the price per gallon. Divide that final product by the number of months in a year

Blooms: Apply

Learning Objective: 01-03 (1) Multiply whole numbers; check and estimate multiplication computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-03: Multiplying and Dividing Whole Numbers

124. The Convention and Visitor's Bureau of the Missouri State Prison saw an increase in visitors from 3,290 in 2009 to 17,200 in 2011. How many more visitors did they see in 2011?

13,910

Feedback: $17,200 - 3,290 = 13,910$

You must first subtract the increased amount of visitors from the new total in 2011 to find the number of visitors from 2009.

Blooms: Apply

Learning Objective: 01-02 (2) Subtract whole numbers; check and estimate subtraction computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-02: Subtracting Whole Numbers

125. Tom traveled with his son Jeff to Branford, CT, by car and flew back at a cost of \$443. He handed the ticket agent a \$1,000 traveler's check. How much will Tom get back?

\$557

Feedback: $\$1,000 - 443 = \557

Blooms: Apply

Learning Objective: 01-02 (2) Subtract whole numbers; check and estimate subtraction computations

Level of Difficulty: 1 Basic

Topic Area: LU 01-02: Subtracting Whole Numbers

126. Round to:
Nearest Hundred
18,932

18,900

Feedback: The digit to the right of 9 is less than 5. Therefore, you do not change the identified digit (9) and you change all digits to the right of the rounded identified digit to zeros.

Blooms: Apply

Learning Objective: 01-01 (2) Round whole numbers

Level of Difficulty: 2 Intermediate

Topic Area: LU 01-01: Rounding Whole Numbers to Place Value

127. The price of gas is \$3.59 per gallon in Florida, well below the average price in California of \$4.37 per gallon. If your Ford Taurus has a 20-gallon tank, assuming you are on empty, how much more will you pay for gas in California?

\$15.60

Feedback: $\$4.37 - 3.59 = .78$ cents; $(.78 \times 20) = \$15.60$

Blooms: Apply

Learning Objective: 01-02 (2) Subtract whole numbers; check and estimate subtraction computations

Level of Difficulty: 3 Challenge

Topic Area: LU 01-02 (2): Adding and Subtracting Whole Numbers

128. Katy purchased 100 shares of Facebook's IPO @ \$38.00 a share. One year later she sold it all for \$50 a share. What was her total gain?

\$1,200

Feedback: $\$38 \times 100 = \$3,800$ cost basis; receipts = $\$50 \times 100 = \$5,000$; $5,000 - 3,800 = \$1,200$

Blooms: Apply

Learning Objective: 01-03 (2) Multiply and divide whole numbers

Level of Difficulty: 3 Challenge

Topic Area: LU 01-03 (2): Dividing Whole Numbers

