Chapter 1
Problem Solving with Math

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 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

26. 1.4 + .14 + 20.001 equals 21.451.
True False

27. 5.11 times 6.5 equals 33.215.
True False

28. 275 divided by 1.5 equals 183.33 rounded to the nearest thousandth.
True False

29. 6,690 divided by 10,000 equals .6690.
True False

30. 29.41 minus .008 equals 29.402.
True False

31. 6.33 times 7.41 = 46.9053.
True False

Multiple Choice Questions

32. The decision-making process does not involve:
A. Stating the problem
B. Deciding on the worst method to solve the problem
C. Determining if the solution makes sense
D. Evaluating the end result
E. Deciding on the best method to solve the problem

33. In the number 49,869 there are how many tens?
A. 9
B. 6
C. 8
D. 4
E. 69

34. 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

35. 37,855 rounded to the nearest thousand is:
A. 40,000
B. 30,000
C. 38,000
D. 37,000
E. None of these

36. 19,810 rounded to the nearest hundred is:
A. 20,000
B. 19,000
C. 19,700
D. 19,800
E. None of these

37. Round all-the-way 2,689:
A. 2,680
B. 3,680
C. 3,000
D. 2,790
E. None of these

38. 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

39. Subtracting 766 from 941 results in a difference of:
A. 175
B. 571
C. 185
D. 241
E. None of these

40. 88,000 × 300 equals:
A. 264,000
B. 26,000
C. 26,400,000
D. 26,000,000
E. None of these

41. 97 × 100,000 equals:
A. 9,700
B. 97,000
C. 9,700,000
D. 970,000
E. None of these

42. 98,000 divided by 4,000 equals:
A. 420
B. 240
C. 2R2
D. 24R2
E. None of these

43. Janet Woo received the following grades in an accounting class at McClenan 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

44. 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

45. At Best Buy a flat screen television with a regular price of $1,790 was reduced by $395. Assuming 800 customers purchased the computer, 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

46. At a General Electric Plant they produced 12,000 jet engines in May. General Electric was able to sell 11,000 of those engines. Calculate 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

47. 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

48. 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

49. 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

50. 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

51. 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

52. 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

53. Round all-the-way 2,689:
A. 2,680
B. 3,680
C. 3,000
D. 2,790
E. None of these

54. 47,000 times 400 equals:
A. 18,800,000
B. 18,000,000
C. 18,000,800
D. 800,000
E. None of these

55. 708,000 divided by 3,000 equals:
A. 236
B. 236 R2
C. 2,360
D. 23,360
E. None of these

56. 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

57. 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 would Jeff's monthly payment be?
A. $361.11
B. $541.67
C. $433.33
D. $400.00
E. None of these

58. A.J. Ryan bought 500 shares of Google at $364.55 per share. Assuming no commission, what did Ryan spend?
A. $128,275
B. $145,820
C. $154,820
D. $182,275
E. None of these

59. Pumpkins at a local farm sell for $.49 per pound. Jim Ring spent $73.50. How many pounds of pumpkins were purchased?
A. 100
B. 150
C. 510
D. 110
E. None of these

60. North Shore Community College reimburses faculty members $.298 cents per mile to go to a workshop. Professor Wales submitted her travel log for a total of 650.11 miles. What reimbursement can Professor Wales expect? (Round to the nearest cent)
A. $193.70
B. $193.71
C. $193.72
D. $193.73
E. None of these

61. The Weather Channel reported that the normal snowfall is 138.44 inches for Lexington County. This winter the following snowfall occurred:

December. . . . . 18.46 inches
January . . . . . 15.438 inches
February. . . . . 18.999 inches
March . . . . . 24.861 inches

How much was the snowfall below normal?
A. 22.682 inches
B. 23.682 inches
C. 26.682 inches
D. 25.682 inches
E. None of these

62. If Jan sells 2,500 glow sticks on the Fourth of July at $1.99 each, what will her total profit be if each stick cost her $.88?
A. $2,757
B. $3,000
C. $2,775
D. $20,757
E. None of these

63. Mike Roland traveled 10,850 miles. His Ford truck averaged 16 miles per gallon. Assuming a gallon of gas cost $2.10, what was Mike's gasoline cost for the trip?
A. $1,404.06
B. $1,400.06
C. $1,442.06
D. $1,444.06
E. None of these

Short Answer Questions

64. Match the numbered words with the lettered definitions.

1. Addend
2. Difference
3. Dividend
4. Divisor
5. Minuend
6 Multiplicand
7. Multiplier
8. Product
9. Quotient
10. Remainder
11. Subtrahend
12. Sum
13. Whole number

A. Number in the division process that is being divided by another.
B. The answer to a division problem.
C. Top number in multiplication problem.
D. The answer to a multiplication problem.
E. Amount left over in the division process.
F. Numbers combined in adding process.
G. Bottom number in a multiplication problem.
H. Doesn't contain a decimal or fraction.
I. Larger number from which another is subtracted.
J. The total of the adding process.
K. Minuend less subtrahend.
L. Smaller number being subtracted from a large number.
M. Number in the division process that is dividing into another number

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

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

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

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

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

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

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

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

71. Fill in missing number:

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

72. Fill in missing number:

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

73. Multiply by shortcut method:
130 × 1,000

74. Multiply by shortcut method:
6,150 × 10,000

75. Divide by shortcut method:
130,000 ÷ 1,000 =

76. Divide by shortcut method:
1,600 ÷ 10 =

77. Divide by long division (show work):
6,644 ÷ 181
Check

78. Estimated by rounding A. all the way and B. do actual calculation.
6,951 ÷ 81 A. Estimate _____ B. Actual _____

79. 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?

80. 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?

81. 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.

82. 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?

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

84. Express in verbal form:
8,732,649

85. Round the following number:
Nearest Ten
65

86. Round the following number:
Nearest Hundred
686

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

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

89. 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

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

5,218
x 605

91. Multiply by the shortcut method:
629,510 × 1,000

92. A. Divide and B. check answer by multiplication:
16,192 ÷ 58

93. Divide by the shortcut method:
1,500 ÷ 50

94. 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?

95. 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?

96. In 2013, 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?

97. 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 the blueprint aid to dissecting a word problem.

Oil filled 12 times per year **Tank holds 300 gal** **$3 per gallon**	**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**

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

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

100. Round to:
Nearest Ten
52

101. Round to:
Nearest Hundred
491

102. Round to:
Nearest Thousand
9,333

103. Round to:
Nearest Ten
84

104. Round to:
Nearest Hundred
671

105. Round to:
Nearest Thousand
6,752

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

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

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

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

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

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

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

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

110. Fill in the missing number:

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

111. Fill in the missing number:

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

112. Fill in the missing number:

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

113. Fill in the missing number:

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

114. Multiply by shortcut method:

115 × 1,000

115. Multiply by shortcut method
1,815 × 10,000

116. Multiply by shortcut method:
525 × 1,000,000

117. Multiply by shortcut method:
1,650 × 10,000

118. Divide by shortcut method:
160,000 ÷ 1,000

119. Divide by shortcut method:
190,000 ÷ 10,000

120. Divide by shortcut method:
180,000 ÷ 100

121. Divide by shortcut method:
165,000 ÷ 1,000

122. Divide by long division:
6,514 ÷ 191
Check

123. Divide by long division:
6,438 ÷ 132
Check

124. Divide by long division:

5,652 ÷ 17

A. Est._____
B. Actual_____

125. Divide by long division:

8,241 ÷ 12

A. Estimate_____
B. Actual_____

126. Regan College had 30 teachers in the Business Department on January 1, 2013. 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?

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

128. 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?

129. 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 ÷ 24 = $750

130. 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)

131. 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?

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

133. 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?

134. 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 each author entitled to?

135. 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?

136. 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?

137. 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?

138. Round to:
Nearest Hundred
18,932

139. 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?

140. 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?

141. Multiply (round solution to nearest hundredth):
9.158×14.382

142. Divide (round to nearest tenth):
$118{,}000 \div 3.95$

143. Complete by shortcut method:
$43.81 \times 1{,}000$

144. Complete by shortcut method:
$11{,}896.413 \times 1{,}000$

145. Complete by shortcut method:
$3{,}069.44 \div 1{,}000$

146. Mel Doane is taking his office staff out to lunch. He has left on his credit card a spending limit of $99.50. If the total meal includes two fruit cups, two onion soups, two veal, two roast beef, three coffees, and one soft drink, will Mel be able to use the card? (Disregard tip plus tax.) If so, how much more charging will Mel be allowed before hitting his credit limit?

Appetizers	
Fruitcup	$1.85
Onion Soup	2.95
Entrees	
Roast Beef	$11.95
Veal	10.45
Haddock	14.50
Beverage	
Coffee	.95
Soft Drinks	1.50

147. Total the following:
Six hundred sixty-eight and eight hundred one thousandths
Twelve and forty-nine hundredths
Three and four thousandths
Fifty-one hundredths
Three hundred ten and four tenths

148. Professor Burns attended a computer seminar at IBM. The college reimburses Professor Burns at $.41 per mile. Professor Burns traveled 520.4 miles. What will the college pay Professor Burns? (Round to nearest cent.)

149. Pete Smith bought two new car tires from Firestone for $89.95 per tire. Firestone charged Pete $3.25 per tire for mounting, $2.60 per tire for valves, and $3.80 per tire for balancing. What is Pete's final bill?

150. Multiply (round solution to nearest hundredth):
8.143×13.281

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
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (3) Dissect and solve a word problem using the blueprint aid
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

2. Commas separate every three digits from left to right.
FALSE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
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
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
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
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

5. Rounding approximates actual answers.
TRUE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

6. Rounding all the way means there are two nonzero digits left.
FALSE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
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
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
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
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

9. 42,515 rounded to the nearest thousand is 43,000.
TRUE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

10. 586 rounded to the nearest ten is 580.
FALSE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

11. 258 rounded all the way is 300.
TRUE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

12. Numbers added together are called sums.
FALSE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

13. The total of addends is called the sum.
TRUE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

14. Adding is always done from bottom to top.
FALSE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

15. The opposite of addition is subtraction.
TRUE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

16. Borrowing in subtraction results in changing positional notation.
TRUE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (2) Subtract Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

17. In subtraction the minuend is the smaller number.
FALSE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (2) Subtract Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

18. 512 minus 285 equals a subtrahend of 227.
FALSE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (2) Subtract Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

19. Multiplication is a shortcut to addition.
TRUE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

20. The multiplicand times the product equals the multiplier.
FALSE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

21. Zeros at the end of the multiplier and/or multiplicand are never attached to the product.
FALSE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

22. 55 × 100 means attaching two zeros to the number being multiplied.
TRUE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

23. Divisor plus quotient + remainder = dividend.
FALSE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (4) Divide Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

24. Division is the reverse of multiplication.
TRUE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (4) Divide Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

25. Short division is rarely done when the divisor is one digit.
FALSE
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (4) Divide Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

26. 1.4 + .14 + 20.001 equals 21.451.
FALSE

Feedback: 1.4 + .14 + 20.001 equals 21.541.

Blooms: Apply
Learning Objective: 01-03 (1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals

27. 5.11 times 6.5 equals 33.215.
TRUE

Feedback: 5.11 times 6.5 equals 33.215.

Blooms: Apply
Learning Objective: 01-03 (1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals

28. 275 divided by 1.5 equals 183.33 rounded to the nearest thousandth.
FALSE

Feedback: Rounded to the nearest thousandth, the answer would be 183.333.

Blooms: Apply
Learning Objective: 01-03(1) Add; subtract; multiply; and divide decimals
Level of Difficulty: 3 Hard
Topic Area: LU 1-3: Basic Math Functions with Decimals

29. 6,690 divided by 10,000 equals .6690.
TRUE

Feedback: Use the shortcut rule to move the decimal four places to the left.

Blooms: Apply
Learning Objective: 01-03 (1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals

30. 29.41 minus .008 equals 29.402.
TRUE

Feedback: 29.41 minus .008 equals the difference of 29.402.

Blooms: Apply
Learning Objective: 01-03 (1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals

31. 6.33 times 7.41 = 46.9053.
TRUE

Feedback: The product of 6.33 and 7.41 equals 46.9053.

Blooms: Apply
Learning Objective: 01-03 (1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 3 Hard
Topic Area: LU 1-3: Basic Math Functions with Decimals

Multiple Choice Questions

32. 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
Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Understand
Learning Objective: 01-01 (3) Dissect and solve a word problem using the blueprint aid
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

33. In the number 49,869 there are how many tens?
A. 9
B. 6
C. 8
D. 4
E. 69
Feedback: Look at the second position from the right

Blooms: Understand
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

34. 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
Feedback: Express each digit in the number separately with its correct place value

Blooms: Understand
Learning Objective: 01-01 (1) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

35. 37,855 rounded to the nearest thousand is:
A. 40,000
B. 30,000
C. 38,000
D. 37,000
E. None of these
Feedback: 7,855 is closer to 8,000 than to 7,000

Blooms: Understand
Learning Objective: 01-01 (2) Round numbers to the indicated position
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

36. 19,810 rounded to the nearest hundred is:
A. 20,000
B. 19,000
C. 19,700
D. 19,800
E. None of these
Feedback: 810 is closer to 800 than to 900

Blooms: Understand
Learning Objective: 01-01 (2) Round numbers to the indicated position
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

37. Round all-the-way 2,689:
A. 2,680
B. 3,680
C. 3,000
D. 2,790
E. None of these

Feedback: Digit to the right of 2 is greater than 5, so 2 becomes 3.

Blooms: Understand
Learning Objective: 01-01 (2) Round numbers to the indicated position
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

38. 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
Feedback: The equation adds up to 2,218

Blooms: Understand
Learning Objective: 01-02 (1) Add whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

39. Subtracting 766 from 941 results in a difference of:
A. 175
B. 571
C. 185
D. 241
E. None of these
Feedback: Check your work by adding 175 and 766

Blooms: Understand
Learning Objective: 01-02 (2) Subtracting Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

40. 88,000 times 300 equals:
A. 264,000
B. 26,000
C. 26,400,000
D. 26,000,000
E. None of these
Feedback: 3 times 88 equals 264; then place the five zeros

Blooms: Understand
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

41. 97 × 100,000 equals:
A. 9,700
B. 97,000
C. 9,700,000
D. 970,000
E. None of these
Feedback: 1 times 97 equals 97; now include the five zeros

Blooms: Understand
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

42. 98,000 divided by 4,000 equals:
A. 420
B. 240
C. 2R2
D. 24R2
E. None of these
Feedback: Cancel out the three zeros, 4 times 24 equals 96, leaving 2 extra

Blooms: Understand
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

43. Janet Woo received the following grades in an accounting class at McClenan 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
Feedback: Add the five largest values and divide that sum by 5

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

44. 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
Feedback: Take the total cost of $10,230 and divide by 310

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

45. At Best Buy a flat screen television with a regular price of $1,790 was reduced by $395. Assuming 800 customers purchased the computer, 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
Feedback: Subtract 395 from 1,790, then multiply by 800

Blooms: Apply
Learning Objective: 01-02 (2) Subtracting Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

46. 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
Feedback: The difference is 1,000. Multiply this by $290,000 and you get the same value with three more zeros

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 3 Hard
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

47. 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
Feedback: Find the difference between 120 and 90, which is 30, and multiply that by 200

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

48. 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
Feedback: Multiply each item count by the item price and total those values

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

49. 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
Feedback: Multiply 1,800 by 6 and subtract that value from $12,955

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

50. 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
Feedback: Add the amount borrowed and the interest charge and divide that total by 25

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 3 Hard
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

51. 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
Feedback: Add the amount borrowed and the interest charge and divide that total by 50

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 3 Hard
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

52. 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
Feedback: 6,000 – 500 – 220 – 220 – 900 = 4,160. Multiply that sum by 70

Blooms: Apply
Learning Objective: 01-02 (1) Add whole numbers
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 3 Hard
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

53. Round all-the-way 2,689:
A. 2,680
B. 3,680
C. 3,000
D. 2,790
E. None of these

Feedback: 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: 01-01 (2) Round numbers to the indicated position
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Numbers

54. 47,000 times 400 equals:
A. **18,800,000**
B. 18,000,000
C. 18,000,800
D. 800,000
E. None of these

Feedback: 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: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

55. 708,000 divided by 3,000 equals:
A. 236
B. 236 R2
C. 2360
D. 23,360
E. None of these

Feedback: 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: 01-02 *(4) Dividing Whole Numbers*
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

56. 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

Feedback: 100 x $15 = $1,500. 100 x $29.99 = $2,999. $2,999 - $1,500 = $1,499.

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

57. 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

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

Blooms: Apply
Learning Objective: 01-02 (3/4) Multiply and divide whole numbers
Difficulty: 3 Hard
Topic Area: LU 01-03: Multiplying Whole Numbers

58. A.J. Ryan bought 500 shares of Google at $364.55 per share. Assuming no commission, what did Ryan spend?
A. $128,275
B. $145,820
C. $154,820
D. $182,275
E. None of these

Feedback: Multiply the number of shares by the price of the share.

Blooms: Apply
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 1 Easy
Topic Area: LU 1-3: Basic Math Functions with Decimals

59. Pumpkins at a local farm sell for $.49 per pound. Jim Ring spent $73.50. How many pounds of pumpkins were purchased?
A. 100
B. 150
C. 510
D. 110
E. None of these

Feedback: Divide the total spent by the price per pound.

Blooms: Apply
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals

60. North Shore Community College reimburses faculty members $.298 cents per mile to go to a workshop. Professor Wales submitted her travel log for a total of 650.11 miles. What reimbursement can Professor Wales expect? (Round to the nearest cent.)
A. $193.70
B. $193.71
C. $193.72
D. $193.73
E. None of these

Feedback: Multiply the number of miles traveled by the reimbursement rate per mile.

Blooms: Apply
Learning Objective: 03-01 (1) Explain the place values of whole numbers and decimals; round decimals
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 03-01: Rounding Decimals; Fraction and Decimal Conversions
Topic Area: LU 1-3: Basic Math Functions with Decimals

61. The Weather Channel reported that normal snowfall is 138.44 inches for Lexington County. This winter the following snowfall occurred:

December. . . . . 18.46 inches
January . . . . . 15.438 inches
February. . . . . 18.999 inches
March . . . . . 24.861 inches

How much was the snowfall below normal?
A. 22.682 inches
B. 23.682 inches
C. 26.682 inches
D. 25.682 inches
E. None of these

Feedback: Add the four months' snowfall totals and subtract that sum from the reported normal snowfall. The answer should be 60.682 below normal.

Blooms: Apply
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 3 Hard
Topic Area: LU 1-3: Basic Math Functions with Decimals

62. If Jan sells 2,500 glow sticks on the Fourth of July at $1.99 each, what will her total profit be if each stick cost her $.88?
A. $2,757
B. $3,000
C. $2,775
D. $20,757
E. None of these

Feedback: Find the difference between the cost and sale price and multiply that difference by the number of glow sticks sold.

Blooms: Apply
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals

63. Mike Roland traveled 10,850 miles. His Ford truck averaged 16 miles per gallon. Assuming a gallon of gas cost $2.10, what was Mike's gasoline cost for the trip?
A. $1,404.06
B. $1,400.06
C. $1,442.06
D. $1,444.06
E. None of these

Feedback: Divide the total miles driven [10,850] by the number of miles per gallon [16]. Multiply that quotient by the price per gallon.

Blooms: Apply
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals

Short Answer Questions

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

Feedback: Review your notes on terminology and vocabulary related to this material

Blooms: Remember
Learning Objective: 01-02 (1) Add whole numbers
Learning Objective: 01-02 (2) Subtracting Whole Numbers
Learning Objective: 01-02 (3) Multiply whole numbers
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

65. 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) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

66. 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 (2) Round numbers to the indicated position
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

67. 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 (2) Round numbers to the indicated position
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

68. 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 (2) Round numbers to the indicated position
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

69. 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 (2) Round numbers to the indicated position
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

70. 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 (2) Round numbers to the indicated position
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

71. Fill in missing number:

3,910
-____
79

3,831

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

Blooms: Apply
Learning Objective: 01-02 (2) Subtracting Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

72. Fill in missing number:

2,188
- 750

1,438

Feedback: 2,188 – 750 equals 1,438

Blooms: Apply
Learning Objective: 01-02 (2) Subtracting Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

73. Multiply by shortcut method:
130 × 1,000
130,000

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

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

74. Multiply by shortcut method:
6,150 × 10,000
61,500,000

Feedback: Attach five zeros to 615

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

75. Divide by shortcut method:
130,000 ÷ 1,000 =
130

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

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

76. Divide by shortcut method:
1,600 ÷ 10 =
160

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

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

77. Divide by long division (show work):
6,644 ÷ 181
Check
36 R128

Feedback: 6644 divided by 181 is 36 R 128

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

78. Estimated by rounding A. all the way and B. do actual calculation.
6,951 ÷ 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) Read and write numeric and verbal numbers using place values
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

79. 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 X 5 = 125, 80-30=50, 125 X 50 = 6250 profit

Blooms: Analyze
Learning Objective: 01-02 (1) Add whole numbers
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

80. 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 x 2 = 45,000 – 6400 = 38,600

Blooms: Apply
Learning Objective: 01-02 (1) Add whole numbers
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

81. 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: 01-02 (3) Multiply whole numbers
Difficulty: 3 Hard
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

82. 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 x 18 = $261,000

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

83. 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) Read and write numeric and verbal numbers using place values
Learning Objective: 01-02 (1) Add whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

84. 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) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

85. 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 (2) Round numbers to the indicated position
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

86. Round the following number:
Nearest Hundred
686
700

Feedback: 686 is closer to 700 than to 600

Blooms: Understand
Learning Objective: 01-01 (2) Round numbers to the indicated position
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

87. 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 (2) Round numbers to the indicated position
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

88. 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 (2) Round numbers to the indicated position
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

89. 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.	B.	C.
1,905	2,000	19
3,755	4,000	8
6,939	7,000	2 5
12,599	13,000	10
		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 (2) Round numbers to the indicated position
Learning Objective: 01-02 (1) Add whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

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

5,218
x 605

(A) 5,000	(B) 5,218
x 600	x 605
3,000,000	26,090
	3 130 80
	3,156,890

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

Blooms: Apply
Learning Objective: 01-01 (2) Round numbers to the indicated position
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

91. Multiply by the shortcut method:
629,510 × 1,000
Answer is 629,510,000 (attach three zeros)

Feedback: Attach three zeros to 629,510

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

92. A. Divide and B. check answer by multiplication:
16,192 ÷ 58

279R10	
A. 58) 16,192	B . 279
<u>116</u>	<u>x 58</u>
459	2232
<u>406</u>	<u>1395</u>
532	16,182
<u>522</u>	<u>+ 10</u>
10	16,192

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

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

93. Divide by the shortcut method:
1,500 ÷ 50
1,500 ÷ 50 = 30 (150 ÷ 5)

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

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

94. 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 (2) Subtracting Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

95. 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
2,000/36 = $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
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

96. 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 ÷ $6,000 = 11 houses

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

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

97. 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 **Tank holds 300 gal** **$3 per gallon**	**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**

Steps

1. Calculate total gallons used 300 × 12 = 3,600
2. Calculate total cost of oil 3,600 gal. ×$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) Dissect and solve a word problem using the blueprint aid
Learning Objective: 01-02 (3) Multiply whole numbers, (4) Dividing Whole Numbers
Difficulty: 3 Hard
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

98. 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) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

99. 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) Read and write numeric and verbal numbers using place values
Difficulty: 1 Easy
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

100. Round to:
Nearest Ten
52
50

Feedback: 52 is closer to 50 than to 60

Blooms: Understand
Learning Objective: 01-01 (2) Round numbers to the indicated position
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

101. Round to:
Nearest Hundred
491
500

Feedback: 491 is closer to 500 than to 400

Blooms: Understand
Learning Objective: 01-01 (2) Round numbers to the indicated position
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

102. 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 (2) Round numbers to the indicated position
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

103. Round to:
Nearest Ten
84
80

Feedback: 84 is closer to 80 than to 90

Blooms: Understand
Learning Objective: 01-01 (2) Round numbers to the indicated position
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

104. Round to:
Nearest Hundred
671
700

Feedback: 671 is closer to 700 than to 600

Blooms: Understand
Learning Objective: 01-01 (2) Round numbers to the indicated position
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

105. 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 (2) Round numbers to the indicated position
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers

106. 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 (2) Round numbers to the indicated position
Learning Objective: 01-02 (1) Add whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

107. 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 (2) Round numbers to the indicated position
Learning Objective: 01-02 (1) Add whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

108. 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 (2) Round numbers to the indicated position
Learning Objective: 01-02 (1) Add whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

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

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

11,000

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

Blooms: Apply
Learning Objective: 01-02 (2) Round numbers to the indicated position
Learning Objective: 01-02 (1) Add whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

110. Fill in the missing number:

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

2,881

Feedback: Subtract 69 from 2,950

Blooms: Apply
Learning Objective: 01-02 (2) Subtracting Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

111. Fill in the missing number:

```
  1,950
- 890
```

1,060

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

Blooms: Apply
Learning Objective: 01-02 (2) Subtracting Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

112. Fill in the missing number:

```
  1,095
-_____
    39
```

1,056

Feedback: Subtract 39 from 1,095

Blooms: Apply
Learning Objective: 01-02 (2) Subtracting Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

113. Fill in the missing number:

```
  9,438
-8,888
```

550

Feedback: 9,438 minus 8,888 is 550

Blooms: Apply
Learning Objective: 01-02 (2) Subtracting Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

114. Multiply by shortcut method:
115 × 1,000
115,000 (115 + 3 zeros)

Feedback: Attach three zeros to 115

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

115. Multiply by shortcut method:
1,815 × 10,000
18,150,000 (1,815 + 4 zeros)

Feedback: Attach four zeros to 1,815

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

116. Multiply by shortcut method:
525 × 1,000,000
525,000,000 (525 + 6 zeros)

Feedback: Attach six zeros to 525

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

117. Multiply by shortcut method.
1,650 × 10,000
16,500,000 (1,650 + 4 zeros)

Feedback: Attach four zeros to 1,650

Blooms: Apply
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

118. Divide by shortcut method:
160,000 ÷ 1,000
160

Feedback: Remove three zeros from 160,000

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

119. Divide by shortcut method:
190,000 ÷ 10,000
19

Feedback: Remove four zeros from 190,000

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

120. Divide by shortcut method:
180,000 ÷ 100
1,800 (drop 2 zeros)

Feedback: Remove two zeros from 180,000

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

121. Divide by shortcut method:
165,000 ÷ 1,000
165 (drop 3 zeros)

Feedback: Remove three zeros from 165,000

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

122. Divide by long division:
6,514 ÷ 191
Check

34 R20	191
191⟌6,514	x 34
5 73	764
784	5 73
764	6,494
20	+ 20
	6,514

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

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 3 Hard
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

123. Divide by long division:
6,438 ÷ 132
Check

48 R102	132
132⟌6,438	x 48
528	1,056
1158	5 28
1056	6,336
102	+ 102
	6,438

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

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 3 Hard
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

124. Divide by long division:

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

A. 300

$$20\overline{)6{,}000}\quad 300$$

B. 332 R8

$$17\overline{)5{,}652}\quad 332R8$$

51
55
51
42
34
8

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 (2) Round numbers to the indicated position
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 3 Hard
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

125. Divide by long division:

8,241 ÷ 12 A. Estimate_____
B. Actual_____

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

B. 686 R9 $12\overline{)8{,}241}$

72
104
96
81
72
9

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 (2) Round numbers to the indicated position
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 3 Hard
Topic Area: LU 01-01: Reading, Writing, and Rounding Whole Numbers
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

126. 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 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, (2) Subtracting Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

127. Al Flow rents a luxurious condominium for $14,004 for six months. What is the rental charge per month that Al pays?
$14,004 ÷ 6 = $2,334

Feedback: Take the total rental cost and divide by 6

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

128. 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 × 15 = 375 × $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: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

129. 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 ÷ 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: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

130. 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)

200 x $80 =	$	16,000
200 x $50 =		10,000
Profit	$	6,000

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
Learning Objective: 01-02 (3) Multiply whole numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

131. 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 (2) Subtracting Whole Numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

132. Mary Ross drove 1,064 miles. Her gas tank holds 28 gallons. How many miles per gallon did Mary's car get?
$1,064 ÷ 28 = 38 miles per gallon

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

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

133. 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 ÷ $3,750 = 27

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

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

134. 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 ÷ 3 = $3,312

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

Blooms: Apply
Learning Objective: 01-02 (4) Dividing Whole Numbers
Difficulty: 2 Medium
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

135. 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 × 12 = 1,728 (gallons) × $2 = $3,456
$3,456 ÷ 12 months = $288 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: 01-02 (3) Multiply whole numbers, (4) Dividing Whole Numbers
Difficulty: 3 Hard
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

136. 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

Blooms: Apply
Learning Objective: 01-02 (2) Subtract whole numbers;
Difficulty: 1 Easy
Topic Area: LU 01- 02: Basic Math Functions with Whole Numbers
Feedback: You must first subtract the increased amount of visitors from the new total in 2011 to find the number of visitors from 2009.

137. 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 (1/2) Add and subtract whole numbers
Difficulty: 1 Easy
Topic Area: LU 01-02: Basic Math Functions with Whole Numbers

138. 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 numbers to the indicated position
Difficulty: 2 Medium
Topic Area: LU 01-01: Reading, Writing, and Rounding Numbers

139. 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 × 20) = $15.60

Blooms: Apply
Learning Objective: 01-02 *(2) Subtracting Whole Numbers, (3) Multiplying Whole Numbers*
Difficulty: 3 Hard
Topic Area: LU 01-02 (2): Basic Math Functions with Whole Numbers

140. 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 ×100 = $3,800 cost basis; receipts = $50 × 100 = $5,000; 5,000 – 3,800 = $1,200

Blooms: Apply

Learning Objective: 01-02 (3/4) Multiply and divide whole numbers
Difficulty: 3 Hard
Topic Area: LU 01- 02: Basic Math Functions with Whole Numbers

141. Multiply (round solution to nearest hundredth):
9.158 × 14.382

131.71

Feedback: 9.158 multiplied by 14.382 equals 131.710. The zero cannot cause the 1 to be rounded up, so the answer is 131.71.

Blooms: Apply
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals

142. Divide (round to nearest tenth):
118,000 ÷ 3.95

29,873.4

Feedback: 118,000 divided by 3.95 equals 29873.41. The 1 cannot cause the 4 to be rounded up, so the answer is 29873.4.

Blooms: Apply
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 1 Easy
Topic Area: LU 1-3: Basic Math Functions with Decimals

143. Complete by shortcut method:
43.81 × 1,000

43,810 (move decimal three places to the right)

Feedback: Because 1,000 has three zeros, you move the decimal three places to the right.

Blooms: Apply
Learning Objective: 01-03(2) Multiply and divide decimals by shortcut methods
Level of Difficulty: 1 Easy
Topic Area: LU 1-3: Basic Math Functions with Decimals

144. Complete by shortcut method:
11,896.413 × 1,000

11,896,413

Feedback: Because 1,000 has three zeros, you move the decimal three places to the right.

Blooms: Apply
Learning Objective: 01-03(2) Multiply and divide decimals by shortcut methods
Level of Difficulty: 1 Easy
Topic Area: LU 1-3: Basic Math Functions with Decimals

145. Complete by shortcut method:
3,069.44 ÷ 1,000

3.06944

Feedback: Because 1,000 has three zeros, you move the decimal three places to the left.

Blooms: Apply
Learning Objective: 01-03(2) Multiply and divide decimals by shortcut methods
Level of Difficulty: 1 Easy
Topic Area: LU 1-3: Basic Math Functions with Decimals

146. Mel Doane is taking his office staff out to lunch. He has left on his credit card a spending limit of $99.50. If the total meal includes two fruit cups, two onion soups, two veal, two roast beef, three coffees, and one soft drink, will Mel be able to use the card? (Disregard tip plus tax.) If so, how much more charging will Mel be allowed before hitting his credit limit?

Appetizers	
Fruitcup	$1.85
Onion Soup	2.95
Entrees	
Roast Beef	$11.95
Veal	10.45
Haddock	14.50
Beverage	
Coffee	.95
Soft Drinks	1.50

$40.75

Feedback: 99.50 – 1.85 – 1.85 – 2.95 – 2.95 – 11.95 – 11.95 – 10.45 – 10.45 – .95 – .95 – .95 – 1.50 equals 40.75. He has $40.75 left to charge.

Blooms: Analyze
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals

147. Total the following:
Six hundred sixty-eight and eight hundred one thousandths
Twelve and forty-nine hundredths
Three and four thousandths
Fifty-one hundredths
Three hundred ten and four tenths

668.801
12.490
3.004
.510
310.400
995.205

Feedback: Write the expressed values vertically in decimal form, aligning the values on the decimal positions, and then add.

Blooms: Understand
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 1 Easy
Topic Area: LU 1-3: Basic Math Functions with Decimals

148. Professor Burns attended a computer seminar at IBM. The college reimburses Professor Burns at $.41 per mile. Professor Burns traveled 520.4 miles. What will the college pay Professor Burns? (Round to nearest cent.)

520.4 miles × $.41 = $213.36

Feedback: 520.4 multiplied by .41 equals 213.36 when rounded to the hundredths place.

Blooms: Analyze
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals

149. Pete Smith bought two new car tires from Firestone for $89.95 per tire. Firestone charged Pete $3.25 per tire for mounting, $2.60 per tire for valves, and $3.80 per tire for balancing. What is Pete's final bill?

2 x $89.95 = 179.90
2 x 9.65 = 19.30
$199.20

Feedback: Multiply each value by 2, vertically write the products so the decimal places align, and add the values.

Blooms: Apply
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals

150. Multiply (round solution to nearest hundredth):
8.143 × 13.281

108.15

```
    13.281
     8.143
    39843
   53124
  13281
106248
108.147183
```

Feedback: Align the values to the right before multiplying. The result, 108.147183, is rounded to 108.15 as the 7 rounds the 4 up to 5.

Blooms: Apply
Learning Objective: 01-03(1) Add, subtract, multiply, and divide decimals
Level of Difficulty: 2 Medium
Topic Area: LU 1-3: Basic Math Functions with Decimals