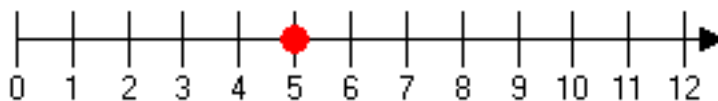
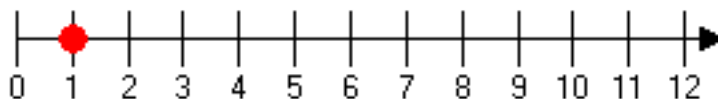


1. Graph the number 5 on the number line.

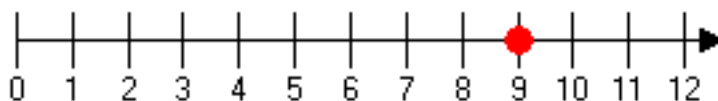
A)



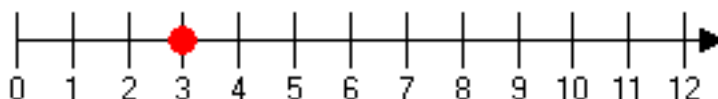
B)



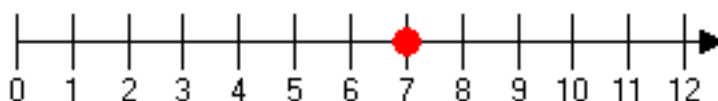
C)



D)



E)



2. Place the correct symbol, $<$ or $>$, between the two numbers: 43, 67

A) $43 > 67$

B) $43 < 67$

3. Place the correct symbol, $<$ or $>$, between the two numbers: 102 , 147
A) $102 > 147$
B) $102 < 147$
4. Place the correct symbol, $<$ or $>$, between the two numbers: 50, 39
A) $50 < 39$
B) $50 > 39$
5. Place the correct symbol, $<$ or $>$, between the two numbers: 6813, 6183
A) $6813 > 6183$
B) $6813 < 6183$
6. Place the correct symbol, $<$ or $>$, between the two numbers: 113, 100
A) $113 < 100$
B) $113 > 100$
7. Name the place value of the digit 8 in this number: 26,608,273
A) Millions
B) Ten-thousands
C) Hundred-thousands
D) Thousands
E) Ten-millions
8. Name the place value of the digit 1 in this number: 88,312,802
A) Thousands
B) Ten-thousands
C) Hundred-thousands
D) Millions
E) Ten-millions
9. Name the place value of the digit 6 in this number: 7,695,483
A) Thousands
B) Ten-thousands
C) Hundred-thousands
D) Millions
E) Ten-millions

10. Write 6823 in words.
- A) Six thousand eight hundred twenty-three
 - B) Eight thousand three hundred twenty-six
 - C) Three thousand six hundred twenty-eight
 - D) Six hundred eight thousand twenty-three
 - E) Eight hundred three thousand twenty-six
11. Write 45,327 in words.
- A) Forty-five thousand three hundred twenty-seven
 - B) Twenty-seven thousand three hundred forty-five
 - C) Forty-five hundred three thousand twenty-seven
 - D) Twenty-seven hundred three thousand forty-five
 - E) Forty thousand three hundred twenty-seven
12. Write 154,269 in words.
- A) Two hundred fifty-nine thousand one hundred sixty-four
 - B) Four hundred fifty-two thousand nine hundred sixty-one
 - C) One hundred fifty-four thousand two hundred sixty-nine
 - D) Nine hundred fifty-one thousand four hundred sixty-two
 - E) one hundred fifty thousand two hundred sixty-nine
13. Write 6,136,844 in words.
- A) One million eight hundred thirty-six thousand six hundred forty-four
 - B) Six million one hundred forty-four thousand eight hundred thirty-six
 - C) Six million one hundred thirty-six thousand eight hundred forty-four
 - D) One million eight hundred forty-four thousand six hundred thirty-six
 - E) Six million one hundred thirty thousand eight hundred forty-four
14. Write one hundred eighty-three in standard form.
- A) 831
 - B) 318
 - C) 381
 - D) 813
 - E) 183

15. Write one thousand two hundred thirty-eight in standard form.
- A) 1238
 - B) 2381
 - C) 3812
 - D) 8123
 - E) 1283
16. Write eighty-one thousand nine hundred thirty-six in standard form.
- A) 81,369
 - B) 19,368
 - C) 93,681
 - D) 36,819
 - E) 81,936
17. Write four hundred eighty-seven thousand two hundred ninety-six in standard form.
- A) 964,872
 - B) 872,964
 - C) 482,796
 - D) 296,487
 - E) 487,296
18. Write six million seven hundred thirty-four thousand seven hundred fifty-one in standard form.
- A) 7,347,516
 - B) 6,734,751
 - C) 3,475,167
 - D) 4,751,673
 - E) 6,751,734
19. Write 4839 in expanded form.
- A) $4000 + 800 + 30 + 9$
 - B) $4 + 80 + 300 + 9000$
 - C) $40,000 + 8000 + 300 + 90$
 - D) $40,000 + 800 + 30 + 9$
 - E) $4000 + 800 + 39$

20. Write 28,479 in expanded form.

- A) $2 + 80 + 400 + 7000 + 90,000$
- B) $20,000 + 8000 + 400 + 70 + 9$
- C) $200,000 + 80,000 + 4000 + 700 + 90$
- D) $200,000 + 8000 + 400 + 70 + 9$
- E) $28,000 + 400 + 79$

21. Write the following number in expanded form: 249,157

- A) $2,000,000 + 400,000 + 90,000 + 1000 + 500 + 70$
- B) $2 + 40 + 900 + 1000 + 50,000 + 700,000$
- C) $200,000 + 40,000 + 9000 + 100 + 50 + 7$
- D) $2,000,000 + 40,000 + 9000 + 100 + 50 + 7$
- E) $200 + 40 + 9 + 100 + 50 + 7$

22. Round 168 to the tens place.

- A) 200
- B) 170
- C) 168
- D) 1680
- E) 17

23. Round 2176 to the hundreds place.

- A) 2200
- B) 2000
- C) 2180
- D) 2176
- E) 218

24. Round 24,092 to the thousands place.

- A) 24,100
- B) 20,000
- C) 24,000
- D) 24,090
- E) 2409

25. Round 753,584 to the thousands place.

- A) 753,580
- B) 750,000
- C) 753,600
- D) 754,000
- E) 7536

26. Round 484,572 to the ten-thousands place.

- A) 480,000
- B) 500,000
- C) 485,000
- D) 484,600
- E) 48,457

27. Round 30,441,182 to the millions place.

- A) 3,044,118
- B) 30,400,000
- C) 30,441,000
- D) 30,440,000
- E) 30,000,000

28. Add:

$$\begin{array}{r} 15 \\ + 67 \\ \hline \end{array}$$

- A) 52
- B) 82
- C) 1567
- D) 72
- E) 92

29. Add:

$$\begin{array}{r} 951 \\ + 942 \\ \hline \end{array}$$

- A) 1993
- B) 9
- C) 1893
- D) 1883
- E) 1793

30. Add:

$$\begin{array}{r} 741 \\ + 11 \\ \hline \end{array}$$

- A) 742
- B) 730
- C) 762
- D) 752
- E) 751

31. Add:

$$\begin{array}{r} 27,676 \\ + 77,932 \\ \hline \end{array}$$

- A) 105,608
- B) 50,256
- C) 106,608
- D) 105,508
- E) 104,508

32. Add:

$$\begin{array}{r} 180 \\ 275 \\ + 574 \\ \hline \end{array}$$

- A) 1039
- B) 919
- C) 1129
- D) 1029
- E) 929

33. Add:

$$\begin{array}{r} 8444 \\ 5422 \\ + 6479 \\ \hline \end{array}$$

- A) 19,245
- B) 20,345
- C) 21,345
- D) 20,355
- E) 19,335

34. Add:

$$\begin{array}{r} 11,362 \\ 98,772 \\ + 73,313 \\ \hline \end{array}$$

- A) 193,547
- B) 182,347
- C) 183,447
- D) 184,546
- E) 182,436

35. Add:

$$44,854 + 8033 + 26$$

- A) 52,913
- B) 52,803
- C) 53,013
- D) 52,923
- E) 52,903

36. Add:

$$425 + 71 + 9842 + 692$$

- A) 10,030
- B) 11,030
- C) 11,130
- D) 11,040
- E) 11,020

37. What is 2579 plus 2899?

- A) 5478
- B) 320
- C) 6478
- D) 5578
- E) 4378

38. What is 3797 increased by 4723?

- A) 9520
- B) 926
- C) 8520
- D) 8620
- E) 7420

39. What is 22,945 more than 6408?

- A) 29,363
- B) 16,537
- C) 30,353
- D) 29,353
- E) 28,343

40. What is 204 added to 3897?

- A) 4000
- B) 3693
- C) 5101
- D) 4111
- E) 4101

41. Find the total of 655, 30, and 7459.

- A) 8244
- B) 8034
- C) 8144
- D) 8145
- E) 8043

42. Find the sum of 18, 808, 3, and 75,879.

- A) 76,708
- B) 76,608
- C) 76,809
- D) 76,709
- E) 76,698

43. For the following numbers, (i) use a calculator to add; and (ii) estimate the sum by rounding the numbers to the nearest ten-thousand and adding.

$$\begin{array}{r} 82,137 \\ 38,603 \\ 10,151 \\ 32,607 \\ + \quad 54,072 \\ \hline \end{array}$$

- A) (i) 227,670 ; (ii) 210,000
- B) (i) 217,570 ; (ii) 200,000
- C) (i) 217,570 ; (ii) 210,000
- D) (i) 227,670 ; (ii) 200,000
- E) (i) 207,560 ; (ii) 230,000

44. At snack time, a patient consumed an item containing 240 milliliters of fluid and an item containing 150 milliliters of fluid. Use the table given below to determine what two items the patient had.

<i>Item</i>	<i>Estimated Volume</i>	<i>Item</i>	
Popsicle, 3 ounces	90 milliliters	Ice cream, 4 ounces	1
Milk, 8 ounces	240 milliliters	Bowl of soup/broth	1
Coffee, 6 ounces	60 milliliters	Gelatin, 1 cup	1

- A) A coffee and milk
- B) A popsicle and milk
- C) Milk and bowl of soup
- D) Milk
- E) Coffee

45. Suppose that in a recent year, there were 94,073 twin births in a country, 6857 triplet births, 623 quadruplet deliveries, and 84 quintuplet and higher-order multiple births. Find the total number of multiple births during the year.

- A) 100,637 multiple births
- B) 101,637 multiple births
- C) 102,647 multiple births
- D) 91,637 multiple births
- E) 101,537 multiple births

46. The Census Bureau estimates that the U.S. population will grow by 294 million people from 2000 to 2100. The U.S. population in 2000 was 289 million, find the Census Bureau's estimate of the U.S. population in 2100.

- A) 583 million people
- B) 5 million people
- C) 394 million people
- D) 289 million people
- E) 294 million people

47. The number of calories for each item in a typical fast food lunch is a quarter-pound hamburger, 430 calories; large French fries, 510 calories; a small vanilla milkshake, 640 calories. Find the total number of calories for this fast food lunch.
- A) 1590 calories
 - B) 1600 calories
 - C) 1580 calories
 - D) 1570 calories
 - E) 1560 calories
48. The perimeter of a triangle is the sum of the lengths of the three sides of the triangle. Find the perimeter of a triangle that has sides that measure 81 inches, 37 inches, and 73 inches.
- A) 180 inches
 - B) 190 inches
 - C) 182 inches
 - D) 191 inches
 - E) 192 inches
49. The odometer on a moving van reads 53,102. The driver plans to drive 485 miles on the first day, 491 miles the second day, and 248 miles the third day.
- a. How many miles will be driven during the three days?
 - b. What will the odometer reading be at the end of the trip?
- A) (a) 1234; (b) 54,326
 - B) (a) 1224; (b) 54,326
 - C) (a) 1224; (b) 54,327
 - D) (a) 1234; (b) 54,327
 - E) (a) 1114; (b) 54,337
50. A medical air rescue helicopter must travel a distance of 66 miles to the scene of an injury, and then must fly 178 miles to the nearest hospital and then another 130 miles to return to its home base. Find the total mileage flown by the medical helicopter.
- A) 367 miles
 - B) 370 miles
 - C) 374 miles
 - D) 380 miles
 - E) 379 miles

51. A local ambulance service company uses 241 gallons of gasoline per month responding to emergencies. The community fire department uses 1481 gallons of gas per month responding to emergencies. How many total gallons of gasoline are used monthly by the ambulance service and the fire department responding to emergencies?

- A) 1726 gallons
- B) 1722 gallons
- C) 1719 gallons
- D) 1717 gallons
- E) 1724 gallons

52. Subtract:

$$\begin{array}{r} 8 \\ - 5 \\ \hline \end{array}$$

- A) 13
- B) 5
- C) 3
- D) 4
- E) 2

53. Subtract:

$$\begin{array}{r} 13 \\ - 6 \\ \hline \end{array}$$

- A) 7
- B) 6
- C) 19
- D) 17
- E) 8

54. Subtract:

$$\begin{array}{r} 86 \\ - 26 \\ \hline \end{array}$$

- A) 61
- B) 59
- C) 70
- D) 71
- E) 60

55. Subtract:

$$\begin{array}{r} 9197 \\ - 6086 \\ \hline \end{array}$$

- A) 4111
- B) 3001
- C) 3122
- D) 3111
- E) 3211

56. Subtract:

$$62 - 49$$

- A) 14
- B) 3
- C) 24
- D) 13
- E) 12

57. Subtract:

$$335 - 22$$

- A) 312
- B) 303
- C) 302
- D) 314
- E) 313

58. Subtract:

$$3456 - 332$$

- A) 3113
- B) 3114
- C) 3124
- D) 3788
- E) 3135

59. Subtract:

$$6756 - 4144$$

- A) 2722
- B) 2612
- C) 3712
- D) 10,900
- E) 2623

60. Subtract:

$$\begin{array}{r} 81 \\ - 22 \\ \hline \end{array}$$

- A) 57
- B) 59
- C) 69
- D) 48
- E) 58

61. Subtract:

$$\begin{array}{r} 702 \\ - 207 \\ \hline \end{array}$$

- A) 496
- B) 484
- C) 495
- D) 506
- E) 485

62. Subtract:
 $2442 - 692$

- A) 3134
- B) 1740
- C) 1750
- D) 1751
- E) 1850

63. Subtract:
 $8221 - 7844$

- A) 367
- B) 277
- C) 16,065
- D) 377
- E) 477

64. Subtract:
 $22,672 - 13,297$

- A) 9275
- B) 9375
- C) 35,969
- D) 9265
- E) 9365

65. Subtract:

$$\begin{array}{r} 4476 \\ - 3496 \\ \hline \end{array}$$

- A) 7972
- B) 990
- C) 969
- D) 980
- E) 1080

66. Subtract:

$$\begin{array}{r} 24,618 \\ - 10,574 \\ \hline \end{array}$$

- A) 35,192
- B) 14,144
- C) 13,944
- D) 14,044
- E) 15,044

67. Find 15,988 less 10,113.

- A) 5875
- B) 4865
- C) 4413
- D) 26,101
- E) 6875

68. Find the difference between 754 and 486.

- A) 268
- B) 258
- C) 257
- D) 1240
- E) 368

69. What is 30,282 less than 37,576?

- A) 17,294
- B) 8294
- C) 7294
- D) 67,858
- E) 7404

70. For the following numbers, (i) use a calculator to subtract; and (ii) estimate the difference by rounding the numbers to the nearest ten-thousand and subtracting.

$$\begin{array}{r} 75,267 \\ - 47,544 \\ \hline \end{array}$$

- A) 27,723 ; (ii) 30,000
- B) 27,723 ; (ii) 40,000
- C) 37,723 ; (ii) 30,000
- D) 37,723 ; (ii) 40,000
- E) 26,723 ; (ii) 10,000

71. You have \$863 in your checking account. If you write a check for \$579, how much is left in your checking account?

- A) \$384
- B) \$294
- C) \$273
- D) \$285
- E) \$284

72. The X-Ray Radiological Company sells their x-ray units in the United States and Canada. The table displays the number of units sold in five states and one Canadian province last year.

<i>Location</i>	<i>NewYork</i>	<i>Ohino</i>	<i>Florida</i>	<i>Texas</i>	<i>California</i>	<i>Quebec</i>
<i>NumberSold</i>	281	61	156	177	384	237

- a. How many units were sold in New York, California, and Quebec?
 - b. What is the difference between the number of units sold in the five states and the Canadian province?
 - c. How many more units were sold in California than in Florida?
 - d. What is the total number of units sold in the states and province listed in the table?
- A) a. 907 units
b. 803 units
c. 226 units
d. 1,294 units
- B) a. 895 units
b. 843 units
c. 227 units
d. 1,293 units
- C) a. 906 units
b. 841 units
c. 231 units
d. 1,298 units
- D) a. 899 units
b. 799 units
c. 230 units
d. 1,299 units
- E) a. 902 units
b. 822 units
c. 228 units
d. 1,296 units

73. As the office manager, you are required to order supplies and pay the office bills. The company already owes \$395 to Prescriptive Medical Supplies Company when you place another order with the company, ordering a new office desk chair for \$129, a file cabinet for \$464, and a box of examination table paper for \$89. You make a payment of \$659 to Prescriptive Medical Supplies Company. Find the amount your office still owes this company.

- A) \$1077
- B) \$418
- C) \$988
- D) \$329
- E) \$289

74. A certified nurse's aide (CNA) monitors both the intake (fluids consumed) and output (urine, vomitus, etc.) of patients to look for signs of dehydration. During her shift, the CNA records a patient's intake as two bowls of soup, a glass of coffee, a cup of gelatin, and a popsicle. Use the table given below to determine the volume of fluid for these foods. The patient's total urine output was 800 milliliters. By how much does the output exceed the intake for this patient?

<i>Item</i>	<i>Estimated Volume</i>	<i>Item</i>	
Popsicle, 3 ounces	90 milliliters	Ice cream, 4 ounces	12
Milk, 8 ounces	240 milliliters	Bowl of soup/broth	15
Coffee, 6 ounces	60 milliliters	Gelatin, 1 cup	12

- A) 230 milliliters
- B) 233 milliliters
- C) 228 milliliters
- D) 225 milliliters
- E) 231 milliliters

75. In a recent year, 775,422 women and 573,074 men earned a bachelor's degree. How many more women than men earned a bachelor's degree in that year?
(Source: The National Center for Education Statistics)

- A) 202,344 more women than men
- B) 202,351 more women than men
- C) 202,355 more women than men
- D) 202,348 more women than men
- E) 202,343 more women than men

76. You are on a 1560-calorie per day diet. You consume 390 calories at breakfast, 465 calories at lunch, and 645 calories at supper. Using the list of healthy snacks given below, which snack(s) can you eat before bedtime and not exceed your daily goal of 1560 calories?

<i>Snack</i>	<i>Calories</i>	<i>Snack</i>	<i>Calories</i>
1 cup air-popped popcorn	31	Nonfat fruit yogurt (6 ounces)	160
1 medium apple	72	Low-fat granola bar	90
1 ounce dry roasted peanuts	166	1 ounce almonds	206

- A) 1 medium apple
- B) 1 ounce almonds
- C) 1 cup air-popped popcorn
- D) Low-fat granola bar
- E) Nonfat fruit yogurt (6 ounces)

77. You had a credit card balance of \$111 before you used the card to purchase books for \$125, CDs for \$36, and a pair of shoes for \$99. You then made a payment to the credit card company of \$314 . Find your new credit card balance.

- A) \$147
- B) \$46
- C) \$256
- D) \$57
- E) \$56

78. Multiply:

$$\begin{array}{r} 3 \\ \times 4 \\ \hline \end{array}$$

- A) 12
- B) 1
- C) 7
- D) 9
- E) 15

79. Multiply:

$$\begin{array}{r} 9 \\ \times 0 \\ \hline \end{array}$$

- A) 27
- B) 9
- C) 10
- D) 18
- E) 0

80. Multiply:

$$\begin{array}{r} 46 \\ \times 2 \\ \hline \end{array}$$

- A) 66
- B) 462
- C) 82
- D) 92
- E) 90

81. Multiply:

$$\begin{array}{r} 683 \\ \times 5 \\ \hline \end{array}$$

- A) 3405
- B) 2415
- C) 3315
- D) 3415
- E) 3515

82. Multiply:

$$\begin{array}{r} 294 \\ \times 9 \\ \hline \end{array}$$

- A) 2546
- B) 2656
- C) 2646
- D) 2626
- E) 2636

83. Multiply:

$$\begin{array}{r} 2366 \\ \times 8 \\ \hline \end{array}$$

- A) 18,928
- B) 16,928
- C) 17,828
- D) 18,628
- E) 18,888

84. Multiply:

$$\begin{array}{r} 8013 \\ \times 2 \\ \hline \end{array}$$

- A) 14,026
- B) 15,026
- C) 16,026
- D) 12,926
- E) 11,926

85. Find the product of 3, 4, and 5.

- A) 17
- B) 45
- C) 72
- D) 48
- E) 60

86. What is 4437 multiplied by 8?

- A) 34,496
- B) 35,496
- C) 35,396
- D) 36,496
- E) 35,596

87. Multiply:

$$\begin{array}{r} 79 \\ \times 25 \\ \hline \end{array}$$

- A) 104
- B) 54
- C) 1975
- D) 1995
- E) 2075

88. Multiply:

$$\begin{array}{r} 814 \\ \times 85 \\ \hline \end{array}$$

- A) 61,050
- B) 68,190
- C) 68,376
- D) 69,190
- E) 77,690

89. Multiply:

$$\begin{array}{r} 2984 \\ \times 25 \\ \hline \end{array}$$

- A) 71,616
- B) 44,760
- C) 74,600
- D) 107,424
- E) 44,775

90. Multiply:

$$\begin{array}{r} 745 \\ \times 780 \\ \hline \end{array}$$

- A) 495,300
- B) 573,300
- C) 503,100
- D) 581,100
- E) 587,760

91. Multiply:

$$\begin{array}{r} 995 \\ \times 500 \\ \hline \end{array}$$

- A) 4,974,000
- B) 49,740
- C) 497,500
- D) 497,400
- E) 497,000

92. Multiply:

$$\begin{array}{r} 2001 \\ \times 469 \\ \hline \end{array}$$

- A) 928,469
- B) 938,469
- C) 927,469
- D) 937,469
- E) 947,469

93. What is 4380 times 32?

- A) 140,478
- B) 139,840
- C) 96,140
- D) 140,160
- E) 140,158

94. Find the product of 3, 49, and 74.
- A) 10,878
 - B) 10,868
 - C) 10,881
 - D) 10,869
 - E) 10,927
95. What is 178 multiplied by 662?
- A) 117,658
 - B) 117,758
 - C) 117,736
 - D) 117,836
 - E) 116,758
96. For the following numbers, (i) use a calculator to multiply; and (ii) estimate the product by rounding the numbers to the nearest thousand and multiplying.
- $$\begin{array}{r} 9472 \\ \times 7818 \\ \hline \end{array}$$
- A) (i) 73,052,096 ; (ii) 73,000,000
 - B) (i) 74,052,096 ; (ii) 71,900,000
 - C) (i) 74,042,096 ; (ii) 72,000,000
 - D) (i) 74,042,096 ; (ii) 71,900,000
 - E) (i) 74,052,096 ; (ii) 72,000,000
97. The cost of surgical 2.2 thread is \$4.40 per foot. Each packet of thread contains 2 feet. You purchase two packets of surgical thread. Which of the following represents the price of the surgical thread?
- A) $2.2 \times 4.40 \times 2 \times 2$
 - B) $2.2 \times 4.40 \times 2$
 - C) 2.2×4.40
 - D) $4.40 \times 2 \times 2$
 - E) $2.2 \times 2 \times 2$

98. Your patient is prescribed 29 milligrams of a medication to be given six times per day. What is the total daily dosage of medication for this patient?
- A) 174 milligrams
 - B) 4.8 milligrams
 - C) 145 milligrams
 - D) 232 milligrams
 - E) 203 milligrams
99. Rob Hill owns a compact car that averages 35 miles on 1 gallon of gas. How many miles could the car travel on 8 gallons of gas?
- A) 380
 - B) 270
 - C) 280
 - D) 288
 - E) 250
100. LabTest Co. ordered 40 new lab jackets for its medical laboratory technicians at a cost of \$45 each. What is the total cost of this order?
- A) \$1827
 - B) \$1777
 - C) \$1832
 - D) \$1800
 - E) \$1781
101. Hand sanitizer is packaged in cases of 24. If a clinic orders 15 cases, how many bottles of hand sanitizer will it receive?
- A) 345 bottles
 - B) 375 bottles
 - C) 360 bottles
 - D) 336 bottles
 - E) 384 bottles
102. The area of a rectangle is equal to the product of the length of the rectangle times its width. Find the area of a rectangle that has a length of 45 meters and a width of 36 meters.
- A) 1610 square meters
 - B) 1620 square meters
 - C) 1580 square meters
 - D) 1720 square meters
 - E) 1650 square meters

103. See the information at the below.
- Find the average cost of tuition and fees for the first four years of college at a public four-year college.
 - Find the average cost of tuition and fees for the first four years of college at a public two-year college.
 - Find the difference in cost of tuition and fees for the first four years of college at a four-year public and two-year public college.

In the News

Comparing Tuition Costs

- Public four-year colleges charge, on average, \$7605 per year in tuition and fees.
- Public two-year colleges charge, on average, \$2713 per year in tuition and fees.

Source: Trends in College Pricing
2010, <http://trends.collegeboard.org>

- A) a. \$30,405
b. \$10,866
c. \$19,609
- B) a. \$30,413
b. \$10,845
c. \$19,561
- C) a. \$30,435
b. \$10,838
c. \$19,554
- D) a. \$30,427
b. \$10,859
c. \$19,561
- E) a. \$30,420
b. \$10,852
c. \$19,568

104. The table below shows the hourly wages of four different job classifications at a small construction company.

<u>Type of Work</u>	<u>Wage per Hour</u>
Electrician	\$34
Plumber	\$29
Clerk	\$15
Bookkeeper	\$19

Carlos Vasquez, a plumbing contractor, hires 6 plumbers from this company at the hourly wage given in the table. If each plumber works 34 hours, what are the total wages paid by Carlos?

- A) \$5916
- B) \$5945
- C) \$5950
- D) \$5946
- E) \$5936

105. Divide:

$$9 \overline{)54}$$

- A) 15
- B) 5
- C) 6
- D) 3
- E) 2

106. Divide:

$$4 \overline{)208}$$

- A) 6
- B) 4
- C) 5
- D) 51
- E) 52

107. Divide:

$$4 \overline{)3564}$$

- A) 802
- B) 891
- C) 991
- D) 902
- E) 892

108. Divide:

$$7 \overline{)99,092}$$

- A) 14,156
- B) 13,156
- C) 4156
- D) 25,156
- E) 23,156

109. What is 4473 divided by 7?

- A) 729
- B) 628
- C) 629
- D) 639
- E) 728

110. Divide:

$$9 \overline{)30}$$

- A) 4 r3
- B) 2 r3
- C) 3 r4
- D) 2 r4
- E) 3 r3

111. Divide:

$$4 \overline{)22}$$

- A) 2 r2
- B) 5 r2
- C) 5 r1
- D) 2 r1
- E) 6 r2

112. Divide:

$$8 \overline{)549}$$

- A) 68 r6
- B) 78 r5
- C) 68 r5
- D) 58 r6
- E) 78 r6

113. Divide:

$$5 \overline{)1557}$$

- A) 311 r3
- B) 310 r2
- C) 311 r4
- D) 310 r4
- E) 311 r2

114. Divide:

$$9 \overline{)31,127}$$

- A) 4458 r4
- B) 4458 r5
- C) 3458 r4
- D) 3458 r5
- E) 3458 r6

115. What is 1558 divided by 7? Round to the nearest ten.

- A) 210
- B) 220
- C) 230
- D) 240
- E) 250

116. Divide:

$$72 \overline{)1489}$$

- A) 20 r48
- B) 10 r49
- C) 20 r47
- D) 10 r47
- E) 20 r49

117. Divide:

$$59 \overline{)10,473}$$

- A) 179 r12
- B) 167 r30
- C) 177 r29
- D) 177 r30
- E) 179 r11

118. Divide:

$$9 \overline{)49,556}$$

- A) 5507 r3
- B) 5406 r2
- C) 5506 r2
- D) 5407 r3
- E) 5507 r2

119. Divide:

$$398 \overline{)9168}$$

- A) 23 r14
- B) 22 r14
- C) 23 r114
- D) 22 r115
- E) 22 r114

120. For the following numbers, (i) use a calculator to divide; and (ii) estimate the quotient by rounding the divisor to the nearest 10 and the dividend to the nearest hundred-thousand.

$$23 \overline{)191,084}$$

- A) (i) 8309 ; (ii) 8000
- B) (i) 8308 ; (ii) 8000
- C) (i) 8309 ; (ii) 10,000
- D) (i) 8308 ; (ii) 10,000
- E) (i) 8307 ; (ii) 8000

121. The table below shows the annual expenditures, in a recent year, of the average household in the United States.

Average Annual Household Expenses

Housing	\$11,713
Food	\$4810
Insurance	\$3381
Health care	\$1903
Entertainment	\$1746
Other	\$5366

Source: Bureau of Labor Statistics
Consumer Expenditure Survey

What is the average monthly expense for housing? Round your answer to the nearest dollar.

- A) \$976
- B) \$977
- C) \$978
- D) \$984
- E) \$985

122. Medical insurance claims for the previous year for one insurance company are listed in the table. What is the combined monthly average for appendectomy and fracture repair surgery? Round your answer to nearest whole number.

<i>Surgery</i>	<i>Claims Total</i>
Appendectomy	\$320,000
Hernia	\$256,000
Fracture repair	\$684,000
Hip replacement	\$879,000

- A) \$99,917
- B) \$83,667
- C) \$130,250
- D) \$48,000
- E) \$78,333

123. Medical insurance claims for the previous year for one insurance company are listed in the table. Provide the monthly average expense for all surgical claims. Round your answer to the nearest whole number.

Surgery	Claims Total
Appendectomy	\$324,200
Hernia	\$258,100
Fracture repair	\$684,700
Hip replacement	\$876,200

- A) \$105,583
- B) \$121,542
- C) \$157,092
- D) \$151,583
- E) \$178,600

124. A farmer harvested 60,666 pounds of avocados from one grove and 30,334 pounds of avocados from another grove. The avocados were all packed in shipping boxes in the same warehouse with 26 pounds in each box. How many boxes were needed to pack the avocados?

- A) 1167
- B) 2334
- C) 3500
- D) 3115
- E) 3000

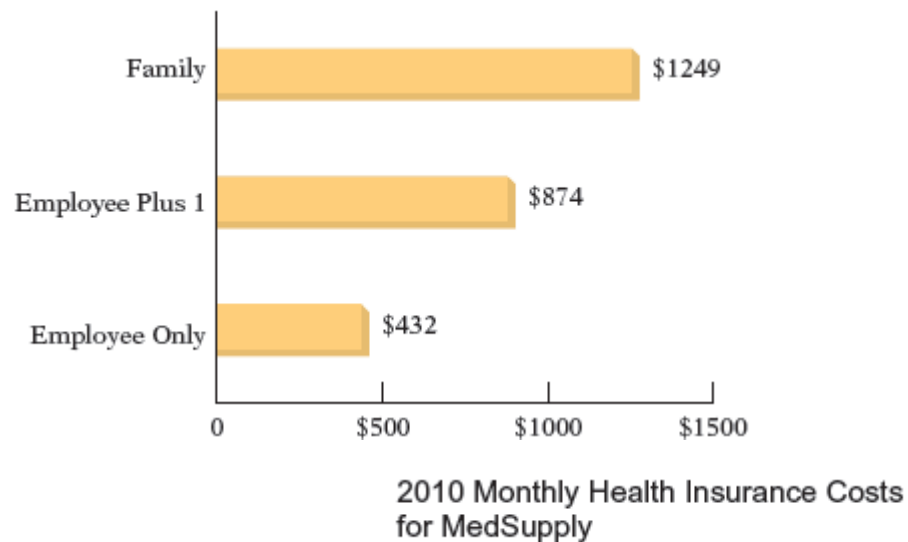
125. Three CNAs are working the floor at a nursing home. There are currently 12 rooms occupied on the floor, and each room contains four patients. If the patients are divided evenly among the three CNAs, how many patients are assigned to each assistant?

- A) 16 patients
- B) 20 patients
- C) 13 patients
- D) 18 patients
- E) 15 patients

126. A local medical office processed and mailed 11,628 bills to patients last year.
Find the average number of bills mailed each month?

- A) 971 pieces of mail per month
- B) 973 pieces of mail per month
- C) 969 pieces of mail per month
- D) 966 pieces of mail per month
- E) 968 pieces of mail per month

127. If an employee wants to include a spouse on a policy, the employee must enroll in the family plan. What is the sum in monthly cost between the family plan coverage and the employee plus1 coverage?



- A) \$2,118
- B) \$2,123
- C) \$2,127
- D) \$2,120
- E) \$2,124

128. Write the following number in exponential notation:
 $8 \cdot 8 \cdot 8 \cdot 8 \cdot 8$

- A) 5^8
- B) $5 \cdot 8$
- C) 8^5
- D) $\frac{8}{5}$
- E) $\frac{5}{8}$

129. Write the following number in exponential notation:
 $7 \cdot 7 \cdot 9 \cdot 9 \cdot 9 \cdot 9$

- A) $(7 \cdot 9)^6$
- B) $2 \cdot 7 + 4 \cdot 9$
- C) $2 \cdot 7 \cdot 4 \cdot 9$
- D) $2^7 \cdot 4^9$
- E) $7^2 \cdot 9^4$

130. Write the following number in exponential notation:
 $6 \cdot 6 \cdot 7 \cdot 7 \cdot 7 \cdot 5$

- A) $2 \cdot 6 + 3 \cdot 7 + 5$
- B) $6^2 \cdot 7^3 \cdot 5$
- C) $2 \cdot 6 \cdot 3 \cdot 7 \cdot 5$
- D) $2^6 \cdot 3^7 \cdot 1^5$
- E) $(6 \cdot 7 \cdot 5)^6$

131. Simplify:
 3^4

- A) 7
- B) 27
- C) 64
- D) 12
- E) 81

132. Simplify:
 $6 \cdot 4^3$

- A) 384
- B) 64
- C) 72
- D) 14
- E) 70

133. Simplify:

$$3^2 \cdot 6^4 \cdot 7$$

- A) 81,648
- B) 27,216
- C) 1008
- D) 22
- E) 1312

134. Simplify:

$$0^4 \cdot 6^2$$

- A) 12
- B) 36
- C) 1
- D) 0
- E) 72

135. Simplify by using the Order of Operations Agreement.

$$17 + 5 \cdot 3^2$$

- A) 510
- B) 94
- C) 47
- D) 62
- E) 1024

136. Simplify by using the Order of Operations Agreement.

$$16 + (9 - 4) \cdot 2$$

- A) 17
- B) 26
- C) 42
- D) 33
- E) 31

137. Simplify by using the Order of Operations Agreement.

$$17^2 + 2 \cdot (8 - 4)^2$$

- A) 321
- B) 281
- C) 577
- D) 313
- E) 305

138. Simplify by using the Order of Operations Agreement.

$$35 - 5 \cdot 6$$

- A) 180
- B) 169
- C) 5
- D) 65
- E) 240

139. Simplify by using the Order of Operations Agreement.

$$11 - (11 - 5) \div 3$$

- A) 17
- B) 13
- C) 15
- D) 16
- E) 9

140. Simplify by using the Order of Operations Agreement.

$$(17 - 2)^2 \div 3 - 2 - 62$$

- A) 611
- B) 161
- C) 11
- D) 13
- E) 16

141. Simplify by using the Order of Operations Agreement.

$$40 - 2 \cdot 2 + (7 - 5)^3$$

- A) 44
- B) 1764
- C) 52
- D) 40
- E) 48

142. Find all factors of the number 45.

- A) 1, 3, 5, 9, 15, 45
- B) 1, 3, 5, 15, 25, 45
- C) 1, 3, 5, 9, 15, 25, 45
- D) 3, 5, 15, 25, 45
- E) 3, 5, 9, 15, 25, 45

143. Find all factors of the number 225.
- A) 3, 5, 9, 15, 25, 45, 75, 225
 - B) 1, 3, 5, 9, 15, 25, 45, 75
 - C) 1, 3, 5, 9, 15, 25, 45, 75, 225
 - D) 1, 3, 5, 9, 15, 25, 45, 75, 225, 675
 - E) 1, 3, 5, 9, 15
144. Find the prime factorization of the number 875.
- A) $125 \cdot 7$
 - B) $5 \cdot 5 \cdot 7 \cdot 7$
 - C) $5 \cdot 5 \cdot 5 \cdot 5$
 - D) $5 \cdot 5 \cdot 5 \cdot 7$
 - E) $25 \cdot 49$
145. White blood cell (WBC) counts can indicate illness or infections. Before surgery, a patient's WBC count was 6,470; the day after surgery, it had risen to 12,781. What was the difference in the count before and after surgery?
- A) 6,336 WBCs
 - B) 6,284 WBCs
 - C) 6,340 WBCs
 - D) 6,290 WBCs
 - E) 6,311 WBCs
146. A medical clinic purchases an x-ray machine at a cost of \$26,990. After a deposit of \$2,690, the balance is due in 54 equal monthly payments. Calculate the monthly payment.
- A) \$450
 - B) \$454
 - C) \$447
 - D) \$445
 - E) \$452
147. A local dentist office gives toothbrushes to its patients after each cleaning. A certain adult toothbrush is packaged 141 to a box and 18 boxes to a case. If the office manager orders two cases, how many toothbrushes are ordered?
- A) 5,081 toothbrushes
 - B) 5,066 toothbrushes
 - C) 5,086 toothbrushes
 - D) 5,076 toothbrushes
 - E) 5,071 toothbrushes

148. Your health insurance premiums are \$229 each month. How much will your insurance cost over a 9-month period?
- A) \$2,070
 - B) \$2,058
 - C) \$2,061
 - D) \$2,067
 - E) \$2,049
149. CNAs measure fluid intake and urine output of patients to help monitor their hydration. All fluids are measured in milliliters.
- a.** A patient consumes 130 milliliters, 210 milliliters, 100 milliliters, and 150 milliliters of fluid at various times during the day. Find the total intake of fluids.
 - b.** The nurse's aide measures 320 milliliters, 225 milliliters, and 70 milliliters of urine output for the same patient. Find the total output of fluids.
 - c.** Which is greater: the total input or total output for the patient? By how many milliliters?
- A)
 - a. 580 milliliters
 - b. 605 milliliters
 - c. Total output; 15 milliliters
 - B)
 - a. 600 milliliters
 - b. 625 milliliters
 - c. Total output; 35 milliliters
 - C)
 - a. 585 milliliters
 - b. 610 milliliters
 - c. Total output; 20 milliliters
 - D)
 - a. 595 milliliters
 - b. 620 milliliters
 - c. Total output; 30 milliliters
 - E)
 - a. 590 milliliters
 - b. 615 milliliters
 - c. Total output; 25 milliliters

Answer Key

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

- 45. B
- 46. A
- 47. C
- 48. D
- 49. B
- 50. C
- 51. B
- 52. C
- 53. A
- 54. E
- 55. D
- 56. D
- 57. E
- 58. C
- 59. B
- 60. B
- 61. C
- 62. C
- 63. D
- 64. B
- 65. D
- 66. D
- 67. A
- 68. A
- 69. C
- 70. A
- 71. E
- 72. E
- 73. B
- 74. A
- 75. D
- 76. C
- 77. D
- 78. A
- 79. E
- 80. D
- 81. D
- 82. C
- 83. A
- 84. C
- 85. E
- 86. B
- 87. C
- 88. D
- 89. C
- 90. D

- 91. C
- 92. B
- 93. D
- 94. A
- 95. D
- 96. E
- 97. D
- 98. A
- 99. C
- 100. D
- 101. C
- 102. B
- 103. E
- 104. A
- 105. C
- 106. E
- 107. B
- 108. A
- 109. D
- 110. E
- 111. B
- 112. C
- 113. E
- 114. D
- 115. B
- 116. E
- 117. D
- 118. C
- 119. A
- 120. D
- 121. A
- 122. B
- 123. E
- 124. C
- 125. A
- 126. C
- 127. B
- 128. C
- 129. E
- 130. B
- 131. E
- 132. A
- 133. A
- 134. D
- 135. D
- 136. B

- 137. A
- 138. C
- 139. E
- 140. C
- 141. A
- 142. A
- 143. C
- 144. D
- 145. E
- 146. A
- 147. D
- 148. C
- 149. E