

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

Answer the question.

- | | | |
|--|--|----------|
| 1) What does the digit 7 mean in the number 247,189?
A) 7 ten thousands
C) 7 hundreds | B) 7 hundred thousands
D) 7 thousands | 1) _____ |
| 2) What does the digit 4 mean in the number 247,189?
A) 4 ten thousands
C) 4 hundreds | B) 4 hundred thousands
D) 4 thousands | 2) _____ |
| 3) What does the digit 2 mean in the number 247,189?
A) 2 ten thousands
C) 2 thousands | B) 2 hundreds
D) 2 hundred thousands | 3) _____ |
| 4) What does the digit 4 mean in the number 189,247?
A) 4 hundreds
B) 4 thousands | C) 4 tens
D) 4 ones | 4) _____ |
| 5) What does the digit 2 mean in the number 189,247?
A) 2 thousands
C) 2 hundred thousands | B) 2 hundreds
D) 2 tens | 5) _____ |
| 6) What does the digit 7 mean in the number 189,247?
A) 7 ones
B) 7 thousands | C) 7 hundreds
D) 7 tens | 6) _____ |
| 7) What does the digit 3 mean in the number 301,475?
A) 3 hundred thousands
C) 3 hundreds | B) 3 thousands
D) 3 ten thousands | 7) _____ |
| 8) What does the digit 0 mean in the number 301,475?
A) 0 thousands
C) 0 ones | B) 0 ten thousands
D) 0 hundred thousands | 8) _____ |
| 9) What does the digit 4 mean in the number 301,475?
A) 4 hundreds
C) 4 tens | B) 4 hundred thousands
D) 4 thousands | 9) _____ |

- 10) What does the digit 9 mean in the number 890,236? 10) _____
- A) 9 hundreds B) 9 thousands
C) 9 hundred thousands D) 9 ten thousands

Fill in the digits for the given place values in the following whole number.

- 11) 3856 11) _____
- thousands __
tens __
- A) Thousands 8, tens 6 B) Thousands 8, tens 5
C) Thousands 3, tens 5 D) Thousands 3, tens 6

- 12) 9742 12) _____
- hundreds __
ones __
- A) Hundreds 7, ones 2 B) Hundreds 4, ones 2
C) Hundreds 9, ones 7 D) Hundreds 7, ones 4

- 13) 92,225 13) _____
- ten thousands __
ones __
- A) Ten thousands 9, ones 2 B) Ten thousands 2, ones 5
C) Ten thousands 9, ones 5 D) Ten thousands 2, ones 2

- 14) 49,185 14) _____
- ten thousands __
hundreds __
- A) Ten thousands 8, hundreds 1 B) Ten thousands 9, hundreds 5
C) Ten thousands 4, hundreds 9 D) Ten thousands 4, hundreds 1

- 15) 97,275 15) _____
- thousands __
tens __
- A) Thousands 7, tens 7 B) Thousands 7, tens 5
C) Thousands 2, tens 5 D) Thousands 7, tens 9

- 16) 1,553,879 16) _____
- millions __
thousands __
- A) Millions 1, thousands 5 B) Millions 5, thousands 3
C) Millions 8, thousands 7 D) Millions 1, thousands 3

- 17) 5,399,711
hundred thousands __
tens __
A) Hundred thousands 3, tens 1
B) Hundred thousands 3, tens 9
C) Hundred thousands 9, tens 7
D) Hundred thousands 5, tens 1

- 18) 7,838,737,338
billions __
millions __
A) Billions 8, millions 8
B) Billions 8, millions 7
C) Billions 8, millions 3
D) Billions 7, millions 8

Write expanded notation.

- 19) 384
A) 384 hundreds
B) 3 hundreds + 8 tens + 4 ones
C) 4 hundreds + 8 tens + 3 ones
D) 3 thousands + 8 hundreds + 4 tens

- 20) 8621
A) 8621 thousands
B) 1 thousands + 2 hundreds + 6 tens + 8 ones
C) 8 hundreds + 2 tens + 6 ones
D) 8 thousands + 6 hundreds + 2 tens + 1 ones

- 21) 47,819
A) 47,819 ten thousands
B) 9 ten thousands + 1 thousands + 8 hundreds + 7 tens + 4 ones
C) 4 ten thousands + 7 thousands + 8 hundreds + 1 tens + 9 ones
D) 4 thousands + 7 hundreds + 8 tens + 19 ones

- 22) 60,900
A) 6 ten thousands + 9 thousands + 0 hundreds + 0 tens + 0 ones
B) 6 thousands + 9 hundreds + 0 tens + 0 ones
C) 690 ten thousands + 0 tens + 0 ones
D) 6 ten thousands + 0 thousands + 9 hundreds + 0 tens + 0 ones

- 23) 7090
A) 7 ten thousands + 9 thousands + 0 hundreds + 0 tens + 0 ones
B) 7 hundreds + 0 tens + 9 ones
C) 7 thousands + 0 hundreds + 9 tens + 0 ones
D) 709 thousands

- 24) 80,340 24) _____
- A) 8 ten thousands + 3 thousands + 0 hundreds + 4 tens + 0 ones
 - B) 8 ten thousands + 0 thousands + 3 hundreds + 4 tens + 0 ones
 - C) 8 thousands + 0 hundreds + 3 tens + 4 ones
 - D) 8 thousands + 3 hundreds + 0 tens + 4 ones
- 25) The number of steps in a stair-climbing race held in a Chicago landmark building was 1948. 25) _____
- A) 9 thousands + 4 hundreds + 8 tens + 0 ones
 - B) 1 thousands + 8 hundreds + 4 tens + 9 ones
 - C) 1 thousands + 948 hundreds
 - D) 1 thousands + 9 hundreds + 4 tens + 8 ones
- 26) The number of steps in a stair-climbing race held in a Malaysian landmark building was 2827. 26) _____
- A) 2 thousands + 0 hundreds + 2 tens + 7 ones
 - B) 2 thousands + 2 hundreds + 7 tens + 8 ones
 - C) 2 thousands + 8 hundreds + 2 tens + 7 ones
 - D) 8 thousands + 2 hundreds + 7 tens + 0 ones
- 27) The projected population in 2030 for a certain country is 280,508. 27) _____
- A) 2 hundred thousands + 8 ten thousands + 5 thousands + 0 hundreds + 0 tens + 8 ones
 - B) 2 hundred thousands + 0 ten thousands + 8 thousands + 5 hundreds + 0 tens + 8 ones
 - C) 2 hundred thousands + 8 ten thousands + 0 thousands + 5 hundreds + 0 tens + 8 ones
 - D) 28 ten thousands + 0 thousands + 5 hundreds + 0 tens + 8 ones
- 28) The projected population in 2050 for a certain country is 4,297,476. 28) _____
- A) 4 millions + 2 hundred thousands + 9 ten thousands + 7 thousands + 4 hundreds + 7 tens + 6 ones
 - B) 4 hundred thousands + 2 ten thousands + 9 thousands + 7 hundreds + 4 tens + 7 ones + 6
 - C) 6 millions + 7 hundred thousands + 4 ten thousands + 9 thousands + 7 hundreds + 2 tens + 4 ones
 - D) 4 millions + 2 hundred thousands + 9 ten thousands + 7 thousands + 4 tens + 7 ones + 6
- 29) The projected population in 2100 for a certain country is 37,406,001. 29) _____
- A) 3 ten millions + 0 millions + 7 hundred thousands + 4 ten thousands + 6 thousands + 0 hundreds + 0 tens + 1 ones
 - B) 3 ten millions + 7 millions + 4 hundred thousands + 0 ten thousands + 0 thousands + 6 hundreds + 0 tens + 1 ones
 - C) 3 ten millions + 7 millions + 4 hundred thousands + 0 ten thousands + 6 thousands + 0 hundreds + 0 tens + 1 ones
 - D) 37 millions + 4 hundred thousands + 0 ten thousands + 6 thousands + 0 hundreds + 0 tens + 1 ones

Write the number in words.

- 30) 135,060 30) _____
A) One million, thirty-five thousand, sixty B) Thirteen thousand, five hundred six
C) One hundred thirty-five thousand, sixty D) Thirteen thousand, five hundred sixty
- 31) 9,300,695 31) _____
A) Nine million, thirty thousand, six hundred ninety-five
B) Ninety-three thousand, six hundred ninety-five
C) Nine million, three thousand, six hundred ninety-five
D) Nine million, three hundred thousand, six hundred ninety-five
- 32) 22,000,674 32) _____
A) Twenty-two million, six thousand seventy-four
B) Two million, two thousand, six hundred seventy-four
C) Twenty-two hundred million, six hundred seventy-four
D) Twenty-two million, six hundred seventy-four
- 33) 64,568,009 33) _____
A) Sixty million, forty-five thousand, sixty-eight hundred and nine
B) Sixty-four million, five hundred sixty-eight thousand, nine
C) Sixty-million, five thousand sixty-eight hundred, nine
D) Sixty-four million, five hundred thousand, sixty-eight hundred, nine
- 34) 235,060 34) _____
A) Twenty-three thousand, five hundred sixty
B) Two hundred thirty-five thousand, sixty
C) Twenty-three thousand, five hundred six
D) Two million, thirty-five thousand, sixty
- 35) 4,200,091 35) _____
A) Four million, two hundred thousand, ninety-one
B) Four million, two hundred ninety-one
C) Four million, twenty thousand, ninety-one
D) Forty-two thousand, ninety-one
- 36) 5168 36) _____
A) Fifty-one thousand, sixty-eight
B) Five thousand, one hundred sixty-eight
C) Five hundred thousand, one hundred sixty-eight
D) Five million, one thousand, sixty-eight

- 37) 3072 37) _____
A) Thirty thousand, seventy-two B) Three million, seventy-two
C) Three thousand, seventy-two D) Three hundred thousand, seventy-two
- 38) 24,807 38) _____
A) Two million, forty-eight thousand, seven
B) Twenty-four thousand, eight hundred seven
C) Two thousand, four hundred eighty-seven
D) Two hundred forty-eight thousand, seven
- 39) 70,146 39) _____
A) Seven thousand, one hundred forty-six
B) Seven hundred one thousand, forty-six
C) Seven million, one thousand, forty-six
D) Seventy thousand, one hundred forty-six

Write a word name for the number in the sentence.

- 40) There were 961 cars parked in the lot outside a large mall. 40) _____
A) Nine hundred sixty-one B) Nine thousand sixty-one
C) One hundred sixty-nine D) Six hundred nine
- 41) The average population of the suburbs around a certain large city is 72,018. 41) _____
A) Seventy-two thousand, one hundred eight
B) Seven thousand, two hundred eighteen
C) Seventy-two thousand, eighteen
D) Seventy-two hundred, eighteen
- 42) The control center was suddenly unable to track the satellite when it reached a distance of 128,615 miles from the earth's surface. 42) _____
A) Six hundred fifteen thousand, one hundred twenty-eight
B) One hundred twenty thousand, eighty-six hundred, fifteen
C) One hundred twenty-eight thousand, six hundred fifteen
D) One hundred twenty-eight million, six hundred fifteen
- 43) One of the statistics to come out of the election was that 45,826,498 people, or about half the population, cast votes. 43) _____
A) Forty-five thousand, eight hundred twenty-six hundred, four hundred, ninety-eight
B) Forty-five billion, eight hundred twenty-six million, four hundred ninety-eight thousand
C) Forty-five million, eight hundred thousand, twenty-six hundred, four hundred ninety-eight
D) Forty-five million, eight hundred twenty-six thousand, four hundred ninety-eight

- 44) The programmers were working with a graphics file of 406,581,060 bytes. 44) _____
A) Four hundred six thousand, five hundred eighty-one hundred, sixty
B) Four hundred six billion, five hundred eighty-one million, sixty
C) Four hundred six million, five hundred eighty-one thousand, sixty
D) Four hundred sixty million, five hundred eighty-one thousand, six hundred

- 45) Scientists were predicting the demise of the space colony as the population approached 600,040,000. 45) _____
A) Six hundred forty million B) Six hundred million, forty thousand
C) Six hundred billion, forty million D) Six hundred million, forty hundred

- 46) Astronomers predicted that it would take 900,070,000,100 earth years for the newly found supernova to make one revolution around the center of its galaxy. 46) _____
A) Nine hundred million, seventy thousand, one hundred
B) Ninety billion, seven hundred million, one hundred thousand
C) Nine hundred seventy thousand, one hundred
D) Nine hundred billion, seventy million, one hundred

- 47) The holder of the "magic number" 444,222,888,555 (which was generated during a college's lottery for distributing student housing) was eligible to choose from among the best dormitories. 47) _____
A) Five hundred fifty-five million, eight hundred eighty-eight billion, two hundred twenty-two thousand, five hundred fifty-five
B) Four hundred forty-four billion, two hundred twenty-two million, eight hundred eighty-eight thousand, five hundred fifty-five
C) Four hundred forty-four million, two hundred twenty-two billion, eight hundred eighty-eight, five hundred fifty-five thousand
D) Eight hundred eighty-eight thousand, two hundred twenty-two billion, four hundred forty-four million, five hundred fifty-five

- 48) Repeating patterns in numbers like 400,040,004,000 held mystical significance for most of the members of the village. 48) _____
A) Four billion, four hundred million, forty thousand
B) Four hundred million, forty thousand, four
C) Four hundred billion, forty million, four thousand
D) Forty billion, four hundred million, four

- 49) In rounding 400,000,001,000 to the highest place value, the "1" has no effect on the "4". 49) _____
A) Four billion, one hundred thousand B) Four hundred thousand, one hundred
C) Four hundred million, one hundred D) Four hundred billion, one thousand

Rewrite the following number using digits.

- 50) Eight thousand, one hundred sixty-seven 50) _____
A) 800,167 B) 810,067 C) 8167 D) 81,067

- | | | | | |
|---|--------------|------------------|--------------|-----------|
| 51) Thirty-two thousand, nine hundred five | | | | 51) _____ |
| A) 3295 | B) 32,950 | C) 320,905 | D) 32,905 | |
| 52) Seven thousand, six | | | | 52) _____ |
| A) 76,000 | B) 7060 | C) 7600 | D) 7006 | |
| 53) Forty-eight thousand, seventeen | | | | 53) _____ |
| A) 4817 | B) 48,170 | C) 47,180 | D) 48,017 | |
| 54) Six hundred thirty-eight thousand,
nine hundred ninety-seven | | | | 54) _____ |
| A) 638,000 | B) 638,977 | C) 638,997,000 | D) 638,997 | |
| 55) Two hundred six thousand, one hundred seven | | | | 55) _____ |
| A) 206,107 | B) 207,106 | C) 2617 | D) 260,170 | |
| 56) One hundred million, six thousand | | | | 56) _____ |
| A) 100,006,000 | B) 1006 | C) 106,000,000 | D) 1,600,000 | |
| 57) Ten million, three hundred fifty-four thousand, two hundred three | | | | 57) _____ |
| A) 135,423 | B) 1,354,203 | C) 10,354,203 | D) 1,354,230 | |
| 58) Three billion | | | | 58) _____ |
| A) 3,000,000,000,000 | | B) 3,000,000,000 | | |
| C) 6,000,000,000 | | D) 3,000,000 | | |

Write standard notation for the number in the sentence.

- | | | | | |
|--|--------------|----------------------|--------------|-----------|
| 59) The Johnsons have driven their car forty-nine thousand, eight hundred three miles in the last few years. | | | | 59) _____ |
| A) 49,803 | B) 49,830 | C) 490,803 | D) 4983 | |
| 60) A certain exotic sport scar costs three hundred twelve thousand, eight hundred ninety-one dollars. | | | | 60) _____ |
| A) 312,891,000 | B) 3,208,910 | C) 31,281 | D) 312,891 | |
| 61) The population of BigTown is one million, three hundred thirty-five thousand, five hundred six. | | | | 61) _____ |
| A) 133,506 | B) 1,335,506 | C) 13,035,560 | D) 1,035,506 | |
| 62) Don figured out that he had lived two billion, five hundred eighty-two million seconds. | | | | 62) _____ |
| A) 2,582,000,000 | | B) 2,582,000 | | |
| C) 2,000,582,000 | | D) 2,582,000,000,000 | | |

- 63) The volume of water in the lake is seven billion, eight hundred twenty-one million, ninety-four thousand, six hundred thirteen gallons. 63) _____
- A) 782,194,613 B) 7,821,094,613
- C) 7,821,940,613 D) 7,000,821,094,613

- 64) The distance between two stars is four trillion, three hundred seventeen billion, nine hundred eighty-eight million miles. 64) _____
- A) 4,317,988 B) 4,317,988,000,000
- C) 4,317,988,000 D) 4,317,988,000,000,000

Use < or > for \square to write a true sentence. Draw a number line if necessary.

- 65) $44 \square 46$ 65) _____
- A) < B) >

- 66) $42 \square 40$ 66) _____
- A) < B) >

- 67) $0 \square 41$ 67) _____
- A) > B) <

- 68) $21 \square 0$ 68) _____
- A) > B) <

- 69) $60 \square 171$ 69) _____
- A) < B) >

- 70) $268 \square 41$ 70) _____
- A) < B) >

- 71) $195 \square 193$ 71) _____
- A) > B) <

- 72) $783 \square 791$ 72) _____
- A) > B) <

- 73) $1535 \square 1537$ 73) _____
- A) > B) <

Use the given table or graph to write the inequality described.

74)

74) _____

Lunch items	Calories	Grams of fat
1 glass of milk (2%)	120	5
Tuna salad	350	22
1 apple	80	1
1 bagel	165	1
Bowl of soup	155	3

Use an inequality to compare the number of calories in an apple and a bagel.

A) $80 > 165$

B) $80 < 165$

C) $155 < 165$

D) $80 < 155$

75)

75) _____

Lunch items	Calories	Grams of fat
1 glass of milk (2%)	120	5
Tuna salad	350	22
1 apple	80	1
1 bagel	165	1
Bowl of soup	155	3

Use an inequality to compare the number of grams of fat in tuna salad and a bowl of soup.

A) $155 < 350$

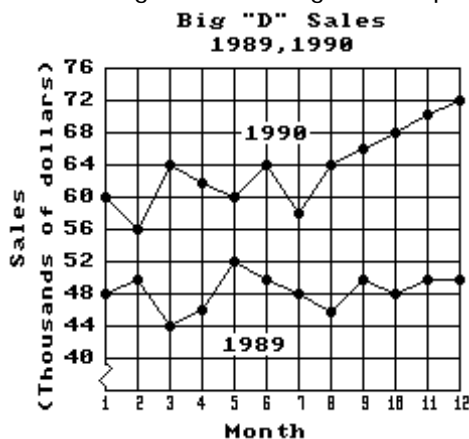
B) $22 > 3$

C) $350 > 155$

D) $3 > 22$

76) The sales figures for the Big "D" Company area shown below in a line plot.

76) _____



Use an inequality to compare the sales for July 1989 and July 1990.

A) $\$48,000 < \$58,000$

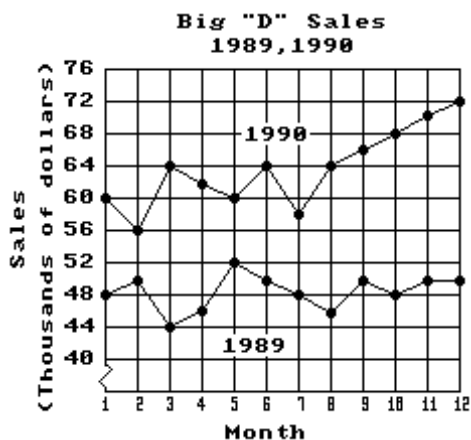
B) $\$46,000 < \$64,000$

C) $\$64,000 > \$50,000$

D) $\$50,000 < \$64,000$

77) The sales figures for the Big "D" Company area shown below in a line plot.

77) _____

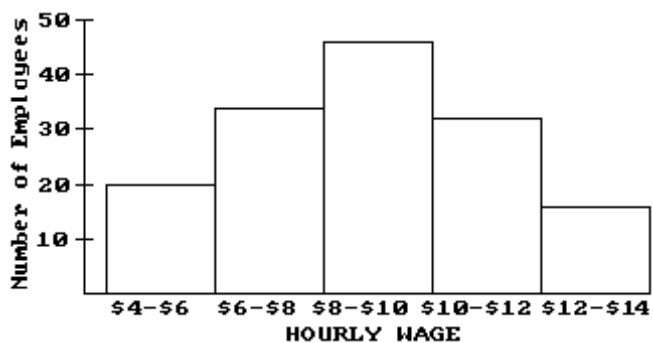


Use an inequality to compare the sales for January 1990 and December 1990.

- A) $\$48,000 < \$60,000$ B) $\$72,000 > \$60,000$
 C) $\$50,000 > \$48,000$ D) $\$70,000 > \$66,000$

78) The wages of the employees of a company are presented in this graph.

78) _____

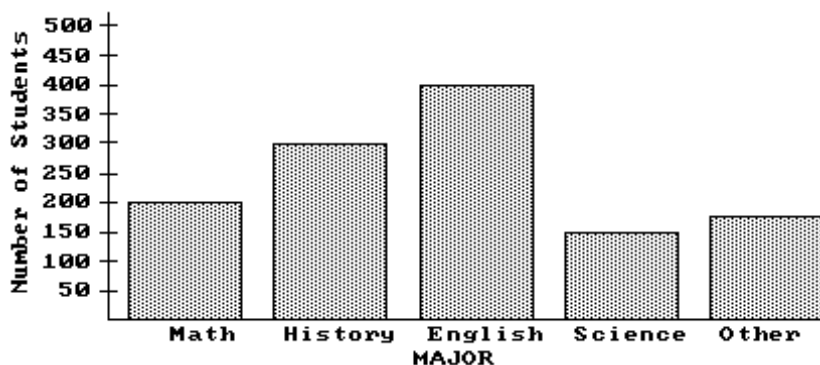


Use an inequality to compare the number of employees who make \$4-\$6 and those who make \$8-\$10.

- A) $25 < 40$ B) $20 < 34$ C) $30 > 20$ D) $20 < 45$

79) The bar graph below shows the number of students by major in the College of Arts and Sciences.

79) _____



Use an inequality to compare the number of math and english majors.

A) $300 > 200$

B) $300 < 400$

C) $200 > 150$

D) $400 > 200$

Add.

80) $\begin{array}{r} 89 \\ + 19 \\ \hline \end{array}$

80) _____

A) 108

B) 107

C) 109

D) 98

81) $\begin{array}{r} 33 \\ + 19 \\ \hline \end{array}$

81) _____

A) 53

B) 52

C) 51

D) 42

82) $\begin{array}{r} 492 \\ + 293 \\ \hline \end{array}$

82) _____

A) 1324

B) 1224

C) 1385

D) 785

83) $\begin{array}{r} 7396 \\ + 4231 \\ \hline \end{array}$

83) _____

A) 10,627

B) 11,627

C) 10,527

D) 10,617

84) $\begin{array}{r} 607 \\ + 83 \\ \hline \end{array}$

84) _____

A) 1437

B) 680

C) 691

D) 690

85) $\begin{array}{r} 8275 \\ + 827 \\ \hline \end{array}$

85) _____

A) 9002

B) 16,545

C) 9092

D) 9102

$$\begin{array}{r} 31,298 \\ 86) + 781 \\ \hline \end{array}$$

86) _____

A) 31,979

B) 39,108

C) 32,089

D) 32,079

$$\begin{array}{r} 62,565 \\ 87) + 4565 \\ \hline \end{array}$$

87) _____

A) 67,330

B) 66,130

C) 67,130

D) 108,215

$$\begin{array}{r} 82,618 \\ 88) + 42,971 \\ \hline \end{array}$$

88) _____

A) 124,489

B) 135,589

C) 124,589

D) 125,589

$$\begin{array}{r} 76,958 \\ 89) + 60,704 \\ \hline \end{array}$$

89) _____

A) 157,762

B) 137,652

C) 683,998

D) 137,662

$$90) 425 + 432$$

90) _____

A) 677

B) 965

C) 857

D) 758

$$91) 3113 + 1424$$

91) _____

A) 4735

B) 4555

C) 4458

D) 4537

$$92) 12,231 + 23,132$$

92) _____

A) 44,363

B) 35,543

C) 35,544

D) 35,363

$$93) 114 + 495$$

93) _____

A) 499

B) 599

C) 609

D) 509

$$94) 147 + 3015$$

94) _____

A) 3162

B) 2162

C) 3172

D) 3062

$$95) 406 + 59,801$$

95) _____

A) 60,207

B) 63,861

C) 61,637

D) 59,207

$$96) 5241 + 9200$$

96) _____

A) 14,431

B) 14,441

C) 14,341

D) 13,441

$$97) 90,802 + 30,270$$

97) _____

A) 131,072

B) 116,073

C) 111,072

D) 121,072

$$\begin{array}{r}
 98) \quad 3 \\
 \quad 2 \\
 \quad 2 \\
 \quad 5 \\
 \quad + 2 \\
 \hline
 \end{array}$$

A) 15

B) 14

C) 12

D) 17

98) _____

$$\begin{array}{r}
 99) \quad 35 \\
 \quad 69 \\
 \quad + 81 \\
 \hline
 \end{array}$$

A) 186

B) 185

C) 196

D) 175

99) _____

$$\begin{array}{r}
 100) \quad 71 \\
 \quad 36 \\
 \quad 4 \\
 \quad 95 \\
 \quad + 20 \\
 \hline
 \end{array}$$

A) 249

B) 226

C) 262

D) 236

100) _____

$$\begin{array}{r}
 101) \quad 494 \\
 \quad 42 \\
 \quad + 938 \\
 \hline
 \end{array}$$

A) 1604

B) 1852

C) 1474

D) 1374

101) _____

$$\begin{array}{r}
 102) \quad 6848 \\
 \quad 7170 \\
 \quad + 2935 \\
 \hline
 \end{array}$$

A) 16,932

B) 16,953

C) 15,953

D) 16,743

102) _____

$$\begin{array}{r}
 103) \quad 69,739 \\
 \quad 8472 \\
 \quad + 50,811 \\
 \hline
 \end{array}$$

A) 129,122

B) 130,122

C) 129,022

D) 128,022

103) _____

104)
$$\begin{array}{r} 568 \\ 411 \\ 328 \\ 682 \\ + 452 \\ \hline \end{array}$$

104) _____

A) 2441

B) 2451

C) 2541

D) 2551

105)
$$\begin{array}{r} 7013 \\ 906 \\ 28 \\ + 6316 \\ \hline \end{array}$$

105) _____

A) 14,153

B) 14,263

C) 13,253

D) 13,163

106)
$$\begin{array}{r} 6442 \\ 777 \\ 86 \\ + 4867 \\ \hline \end{array}$$

106) _____

A) 11,072

B) 12,172

C) 12,062

D) 11,162

107)
$$\begin{array}{r} 32,297,217 \\ 6,905,419 \\ 504,473 \\ + 5,399,647 \\ \hline \end{array}$$

107) _____

A) 45,236,756

B) 45,106,756

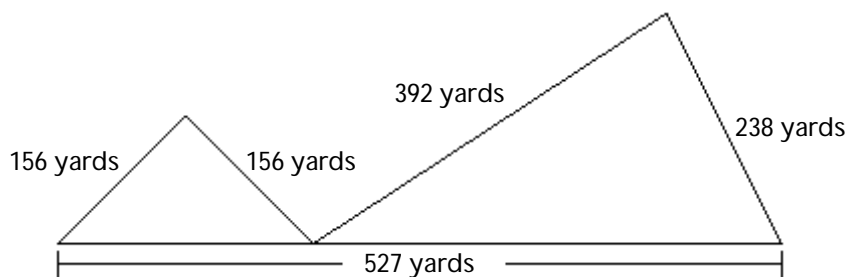
C) 49,647,013

D) 45,094,626

Find the perimeter of the figure.

108)

108) _____



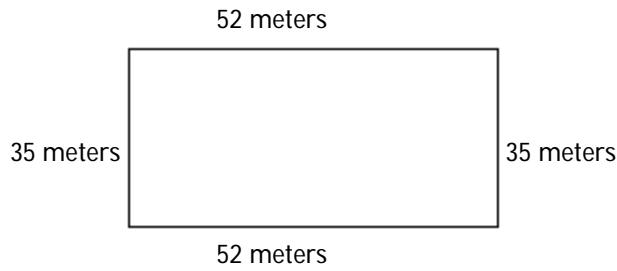
A) 1231 yards

B) 1313 yards

C) 1233 yards

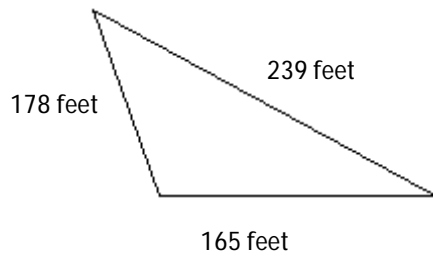
D) 1469 yards

109) A concrete curb is to be built around a parking lot. How many meters of curbing will be needed? 109) _____



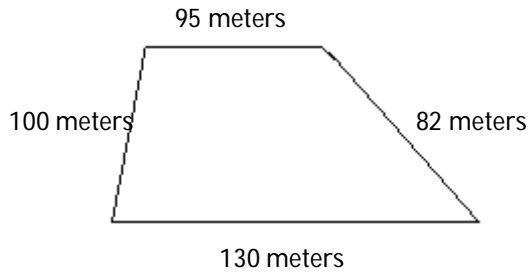
- A) 139 m B) 1820 m C) 174 m D) 87 m

110) Joe wants to frame his garden with pine lumber. How many feet of lumber will he need? 110) _____



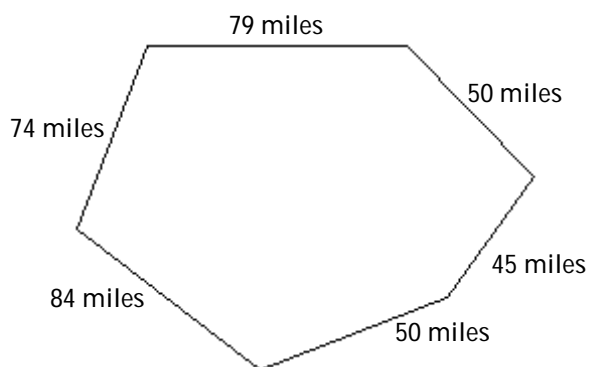
- A) 417 ft B) 572 ft C) 582 ft D) 39,852 ft

111) Maria needs to replace all the fencing around her horse pasture. How many meters of fencing will she need? 111) _____



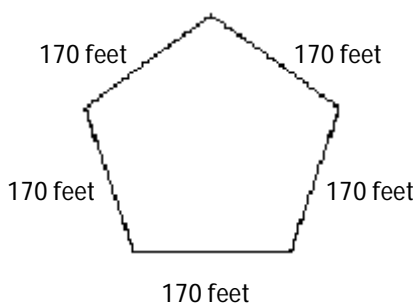
- A) 364 m B) 312 m C) 354 m D) 407 m

- 112) The local park district acquired lands to be used for a new dog park. How many miles of fencing are needed to enclose the dog park? 112) _____



- A) 402 mi B) 382 mi C) 461 mi D) 308 mi

- 113) The city plans to frame the local playground with redwood lumber. How many feet of lumber will the city need? 113) _____



- A) 850 ft B) 28,900 ft C) 865 ft D) 1020 ft

Subtract.

- 114)
$$\begin{array}{r} 79 \\ - 25 \\ \hline \end{array}$$
 114) _____

- A) 44 B) 74 C) 54 D) 104

- 115)
$$\begin{array}{r} 58 \\ - 34 \\ \hline \end{array}$$
 115) _____

- A) 92 B) 34 C) 16 D) 24

- 116)
$$\begin{array}{r} 557 \\ - 253 \\ \hline \end{array}$$
 116) _____

- A) 810 B) 298 C) 304 D) 204

- | | | | | | |
|------|---|-----------|-----------|-----------|-------|
| 117) | $\begin{array}{r} 888 \\ - 55 \\ \hline \end{array}$ | | | 117) | _____ |
| | A) 733 | B) 943 | C) 823 | D) 833 | |
| 118) | $\begin{array}{r} 7867 \\ - 332 \\ \hline \end{array}$ | | | 118) | _____ |
| | A) 7531 | B) 535 | C) 7471 | D) 7535 | |
| 119) | $\begin{array}{r} 6788 \\ - 2413 \\ \hline \end{array}$ | | | 119) | _____ |
| | A) 4375 | B) 4369 | C) 6375 | D) 4349 | |
| 120) | $\begin{array}{r} 5857 \\ - 5212 \\ \hline \end{array}$ | | | 120) | _____ |
| | A) 641 | B) 645 | C) 5645 | D) 621 | |
| 121) | $\begin{array}{r} 66,876 \\ - 21,212 \\ \hline \end{array}$ | | | 121) | _____ |
| | A) 45,664 | B) 46,664 | C) 45,660 | D) 45,640 | |
| 122) | $\begin{array}{r} 68,986 \\ - 4333 \\ \hline \end{array}$ | | | 122) | _____ |
| | A) 64,587 | B) 64,647 | C) 64,653 | D) 68,653 | |
| 123) | $\begin{array}{r} 72 \\ - 26 \\ \hline \end{array}$ | | | 123) | _____ |
| | A) 46 | B) 98 | C) 42 | D) 66 | |
| 124) | $\begin{array}{r} 65 \\ - 55 \\ \hline \end{array}$ | | | 124) | _____ |
| | A) 120 | B) 10 | C) 0 | D) 20 | |
| 125) | $\begin{array}{r} 527 \\ - 185 \\ \hline \end{array}$ | | | 125) | _____ |
| | A) 342 | B) 242 | C) 712 | D) 332 | |

- | | | | | |
|--|-----------|-----------|-----------|------------|
| 126) $\begin{array}{r} 841 \\ - 59 \\ \hline \end{array}$ | | | | 126) _____ |
| A) 780 | B) 682 | C) 782 | D) 900 | |
| 127) $\begin{array}{r} 3891 \\ - 628 \\ \hline \end{array}$ | | | | 127) _____ |
| A) 263 | B) 3263 | C) 3261 | D) 3221 | |
| 128) $\begin{array}{r} 6729 \\ - 5195 \\ \hline \end{array}$ | | | | 128) _____ |
| A) 1484 | B) 1524 | C) 6534 | D) 1534 | |
| 129) $\begin{array}{r} 6167 \\ - 1724 \\ \hline \end{array}$ | | | | 129) _____ |
| A) 5443 | B) 4443 | C) 4435 | D) 4395 | |
| 130) $\begin{array}{r} 81,258 \\ - 49,654 \\ \hline \end{array}$ | | | | 130) _____ |
| A) 40,604 | B) 31,596 | C) 31,604 | D) 31,496 | |
| 131) $\begin{array}{r} 54,435 \\ - 6965 \\ \hline \end{array}$ | | | | 131) _____ |
| A) 53,470 | B) 47,400 | C) 47,470 | D) 47,460 | |
| 132) $61 - 36$ | | | | 132) _____ |
| A) 20 | B) 25 | C) 45 | D) 35 | |
| 133) $650 - 101$ | | | | 133) _____ |
| A) 533 | B) 559 | C) 649 | D) 549 | |
| 134) $138 - 31$ | | | | 134) _____ |
| A) 107 | B) 97 | C) 119 | D) 207 | |
| 135) $6476 - 1310$ | | | | 135) _____ |
| A) 5126 | B) 5256 | C) 5666 | D) 5166 | |
| 136) $95,007 - 15,656$ | | | | 136) _____ |
| A) 80,751 | B) 79,251 | C) 79,351 | D) 79,751 | |

137) $73,027 - 8442$

A) 64,585

B) 72,405

C) 64,285

D) 68,585

137) _____

138) $91,084 - 6861$

A) 84,523

B) 88,223

C) 92,043

D) 84,223

138) _____

139) $4611 - 34$

A) 4645

B) 4527

C) 4575

D) 4577

139) _____

140) $73,823 - 63$

A) 73,886

B) 73,260

C) 73,410

D) 73,760

140) _____

141) $79,214 - 217$

A) 78,497

B) 79,431

C) 78,647

D) 78,997

141) _____

Multiply.

142)

$$\begin{array}{r} 88 \\ \times 6 \\ \hline \end{array}$$

A) 528

B) 628

C) 488

D) 494

142) _____

143)

$$\begin{array}{r} 908 \\ \times 5 \\ \hline \end{array}$$

A) 4640

B) 4440

C) 4550

D) 4540

143) _____

144)

$$\begin{array}{r} 2596 \\ \times 3 \\ \hline \end{array}$$

A) 7888

B) 7688

C) 7788

D) 7798

144) _____

145)

$$\begin{array}{r} 48,148 \\ \times 9 \\ \hline \end{array}$$

A) 433,332

B) 433,262

C) 433,322

D) 433,432

145) _____

146) $8 \cdot 703$

A) 80

B) 5624

C) 584

D) 5840

146) _____

- | | | | | |
|--|---------------|---------------|---------------|------------|
| 147) $7 \cdot 707$
A) 4949 | B) 4942 | C) 4939 | D) 4849 | 147) _____ |
| 148) $2(8494)$
A) 16,888 | B) 16,998 | C) 16,988 | D) 17,088 | 148) _____ |
| 149) $\begin{array}{r} 28 \\ \times 78 \\ \hline \end{array}$
A) 2184 | B) 2284 | C) 2194 | D) 2174 | 149) _____ |
| 150) $(33)(22)$
A) 736 | B) 716 | C) 726 | D) 826 | 150) _____ |
| 151) $(86)(329)$
A) 28,294 | B) 28,284 | C) 28,394 | D) 28,304 | 151) _____ |
| 152) $(438)(86)$
A) 37,768 | B) 37,668 | C) 37,678 | D) 37,658 | 152) _____ |
| 153) $\begin{array}{r} 119 \\ \times 69 \\ \hline \end{array}$
A) 8211 | B) 8201 | C) 8221 | D) 8311 | 153) _____ |
| 154) $\begin{array}{r} 664 \\ \times 327 \\ \hline \end{array}$
A) 217,128 | B) 217,228 | C) 217,118 | D) 217,138 | 154) _____ |
| 155) $\begin{array}{r} 4118 \\ \times 499 \\ \hline \end{array}$
A) 2,064,882 | B) 2,054,982 | C) 2,053,882 | D) 2,054,882 | 155) _____ |
| 156) $\begin{array}{r} 4795 \\ \times 7486 \\ \hline \end{array}$
A) 35,905,370 | B) 35,895,470 | C) 35,894,370 | D) 35,895,370 | 156) _____ |

157)

$$\begin{array}{r} 50 \\ \times 2 \\ \hline \end{array}$$

A) 90

B) 110

C) 80

D) 100

157) _____

158)

$$\begin{array}{r} 600 \\ \times 9 \\ \hline \end{array}$$

A) 5300

B) 5400

C) 4400

D) 6400

158) _____

159)

$$\begin{array}{r} 570 \\ \times 6 \\ \hline \end{array}$$

A) 3420

B) 13,420

C) 4420

D) 2420

159) _____

160)

$$\begin{array}{r} 278 \\ \times 90 \\ \hline \end{array}$$

A) 26,020

B) 24,020

C) 35,020

D) 25,020

160) _____

161)

$$\begin{array}{r} 8578 \\ \times 70 \\ \hline \end{array}$$

A) 601,460

B) 610,460

C) 600,460

D) 599,460

161) _____

162)

$$\begin{array}{r} 200 \\ \times 300 \\ \hline \end{array}$$

A) 60,000

B) 61,000

C) 59,000

D) 70,000

162) _____

163)

$$\begin{array}{r} 33,000 \\ \times 5000 \\ \hline \end{array}$$

A) 165,001,000

B) 165,000,000

C) 164,999,501

D) 164,999,000

163) _____

164) $120 \cdot 80$

A) 9600

B) 9596

C) 9590

D) 9610

164) _____

165) $4300 \cdot 400$

A) 1,721,000

B) 1,719,501

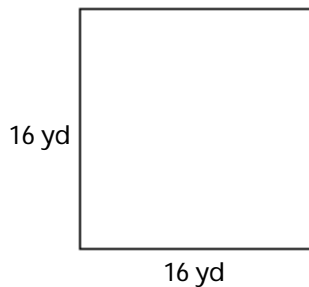
C) 1,720,000

D) 1,719,000

165) _____

Find the area of the region.

166)



A) 512 sq yd

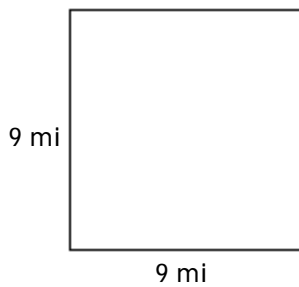
B) 256 sq yd

C) 251 sq yd

D) 64 sq yd

166) _____

167)



A) 81 sq mi

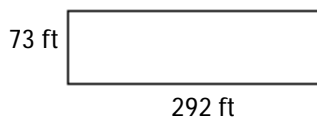
B) 36 sq mi

C) 77 sq mi

D) 84 sq mi

167) _____

168)



A) 730 sq ft

B) 21,306 sq ft

C) 21,316 sq ft

D) 21,326 sq ft

168) _____

169) A homeowner is planning a vegetable garden and needs to know the area to determine how much compost to add. Find the area of the rectangular garden.

169) _____



A) 128 sq ft

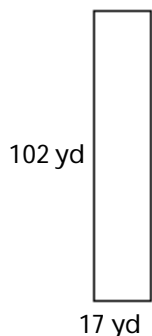
B) 256 sq ft

C) 192 sq ft

D) 64 sq ft

170) A section of property is to be cleared and planted with grass. Find the area of the new lawn.

170) _____



A) 1445 sq yd

B) 1734 sq yd

C) 1724 sq yd

D) 119 sq yd

Divide, if possible. If not possible, write "not defined."

171) $\frac{35}{7}$

171) _____

A) 4 R6

B) 4 R7

C) 5

D) 6

172) $\frac{2}{0}$

172) _____

A) 2

B) 0

C) Not defined

D) 1

173) $62 \overline{)0}$

173) _____

A) Not defined

B) 0

C) 1

D) 62

174) $572 \div 2$

174) _____

A) 285 R 1

B) 285

C) 286 R 1

D) 286

175) $4485 \div 5$

175) _____

A) 899

B) 897 R 1

C) 899 R 4

D) 897

176) $5 \overline{)7055}$

176) _____

A) 1409

B) 1409 R 1

C) 1411 R 4

D) 1411

177) $6 \overline{)285}$

177) _____

A) 47 R3

B) 47 R5

C) 47

D) 50

178) $8 \overline{)195}$

178) _____

A) 24 R3

B) 27

C) 24

D) 24 R7

179) $2746 \div 6$

179) _____

A) 457 R5

B) 457 R4

C) 457

D) 461

180) $4 \overline{)3382}$
A) 845 R2

B) 844 R6

C) 845

D) 845 R1

180) _____

Divide.

181) $1,830,000 \div 1000$
A) 183,000

B) 183

C) 1.83e+09

D) 1830

181) _____

182) $23 \overline{)874}$
A) 38 R 15

B) 38

C) 39 R 5

D) 39 R 13

182) _____

183) $903 \div 35$
A) 25

B) 24 R 26

C) 25 R 28

D) 23 R 7

183) _____

184) $2422 \div 14$
A) 174 R 4

B) 173 R 5

C) 174

D) 173

184) _____

185) $40 \overline{)7414}$
A) 188 R 32

B) 185

C) 188 R 5

D) 185 R 14

185) _____

186) $51 \overline{)83,946}$
A) 1646

B) 1656 R 41

C) 1636

D) 1651 R 33

186) _____

187) $33 \overline{)8343}$
A) 252 R11

B) 252

C) 27

D) 252 R27

187) _____

188) $6191 \div 149$
A) 44 R 49

B) 41

C) 41 R 82

D) 36 R 82

188) _____

189) $460 \overline{)66,667}$
A) 144 R427

B) 144 R317

C) 144

D) 427

189) _____

190) $546 \overline{)3,527,706}$
A) 6451

B) 6461

C) 6461 R 68

D) 6451 R 68

190) _____

Round as indicated.

191) 876 to the nearest ten
A) 880

B) 870

C) 890

D) 980

191) _____

192) 3445 to the nearest ten
A) 3460

B) 3450

C) 3550

D) 3440

192) _____

- | | | | | | |
|------------------------------------|--------------|--------------|--------------|--------------|------------|
| 193) 9865 to the nearest ten | A) 9880 | B) 9860 | C) 9870 | D) 9970 | 193) _____ |
| 194) 55,838 to the nearest ten | A) 55,940 | B) 55,830 | C) 55,840 | D) 55,850 | 194) _____ |
| 195) 548,039 to the nearest ten | A) 548,140 | B) 548,020 | C) 548,050 | D) 548,040 | 195) _____ |
| 196) 741 to the nearest hundred | A) 600 | B) 700 | C) 800 | D) 710 | 196) _____ |
| 197) 369 to the nearest hundred | A) 390 | B) 300 | C) 500 | D) 400 | 197) _____ |
| 198) 6340 to the nearest hundred | A) 6200 | B) 6310 | C) 6400 | D) 6300 | 198) _____ |
| 199) 6171 to the nearest hundred | A) 6100 | B) 6200 | C) 6300 | D) 6190 | 199) _____ |
| 200) 73,514 to the nearest hundred | A) 73,510 | B) 73,600 | C) 73,400 | D) 73,500 | 200) _____ |
| Round to the nearest thousand. | | | | | |
| 201) 7334 | A) 7300 | B) 8000 | C) 7330 | D) 7000 | 201) _____ |
| 202) 7546 | A) 7550 | B) 8000 | C) 9000 | D) 7500 | 202) _____ |
| 203) 11,254 | A) 12,000 | B) 11,000 | C) 11,100 | D) 21,000 | 203) _____ |
| 204) 75,003 | A) 76,000 | B) 75,100 | C) 75,010 | D) 75,000 | 204) _____ |
| 205) 213,469 | A) 212,000 | B) 210,000 | C) 213,000 | D) 213,500 | 205) _____ |
| 206) 2,543,441 | A) 2,544,000 | B) 2,543,400 | C) 2,543,000 | D) 2,540,000 | 206) _____ |

Estimate the sum or difference by first rounding to the nearest ten.

$$\begin{array}{r} 207) \quad 64 \\ + 94 \\ \hline \end{array}$$

207) _____

A) 160

B) 158

C) 150

D) 200

$$\begin{array}{r} 208) \quad 69 \\ 16 \\ 75 \\ 27 \\ + 72 \\ \hline \end{array}$$

208) _____

A) 259

B) 270

C) 300

D) 260

$$\begin{array}{r} 209) \quad 65 \\ - 22 \\ \hline \end{array}$$

209) _____

A) 40

B) 50

C) 43

D) 90

$$\begin{array}{r} 210) \quad 6756 \\ - 2684 \\ \hline \end{array}$$

210) _____

A) 4072

B) 4100

C) 4080

D) 4070

$$\begin{array}{r} 211) \quad 693 \\ - 46 \\ \hline \end{array}$$

211) _____

A) 650

B) 640

C) 600

D) 647

Estimate the sum or difference by first rounding as indicated.

212) Estimate by first rounding to the nearest hundred.

212) _____

$$\begin{array}{r} 2355 \\ + 6263 \\ \hline \end{array}$$

A) 8618

B) 9000

C) 8700

D) 8600

213) Estimate by first rounding to the nearest hundred.

213) _____

$$\begin{array}{r} 940 \\ 787 \\ 485 \\ 617 \\ + 949 \\ \hline \end{array}$$

A) 3778

B) 3700

C) 3780

D) 3800

214) Estimate by first rounding to the nearest hundred.

$$\begin{array}{r} 882 \\ - 737 \\ \hline \end{array}$$

214) _____

A) 200

B) 1600

C) 100

D) 145

215) Estimate by first rounding to the nearest hundred.

$$\begin{array}{r} 9366 \\ - 1743 \\ \hline \end{array}$$

215) _____

A) 8000

B) 7700

C) 7600

D) 7623

216) Estimate by first rounding to the nearest thousand.

$$\begin{array}{r} 4690 \\ 9715 \\ 8781 \\ + 4193 \\ \hline \end{array}$$

216) _____

A) 27,500

B) 27,400

C) 27,000

D) 28,000

217) Estimate by first rounding to the nearest thousand.

$$\begin{array}{r} 5427 \\ 3364 \\ 3856 \\ + 3441 \\ \hline \end{array}$$

217) _____

A) 16,200

B) 16,000

C) 15,000

D) 16,100

218) Estimate by first rounding to the nearest thousand.

$$\begin{array}{r} 70,278 \\ - 37,626 \\ \hline \end{array}$$

218) _____

A) 32,800

B) 33,000

C) 32,000

D) 32,700

219) Estimate by first rounding to the nearest thousand.

$$\begin{array}{r} 82,621 \\ - 27,464 \\ \hline \end{array}$$

219) _____

A) 55,000

B) 55,200

C) 55,100

D) 56,000

Estimate the answer by rounding as indicated.

220) Estimate by first rounding to the nearest ten.

$$\begin{array}{r} 61 \\ \times 24 \\ \hline \end{array}$$

220) _____

A) 80

B) 1464

C) 1460

D) 1200

221) Estimate by first rounding to the nearest hundred.

$$\begin{array}{r} 997 \\ \times 720 \\ \hline \end{array}$$

221) _____

A) 1700

B) 717,840

C) 717,800

D) 700,000

222) Estimate by first rounding to the nearest ten.

$$279 \div 44$$

222) _____

A) 10

B) 7

C) 8

D) 19

223) Estimate by first rounding to the nearest ten.

$$663 \div 26$$

223) _____

A) 22

B) 21

C) 29

D) 35

224) Estimate by first rounding to the nearest hundred.

$$8502 \div 524$$

224) _____

A) 18

B) 17

C) 21

D) 15

225) Estimate by first rounding to the nearest hundred.

$$23,170 \div 753$$

225) _____

A) 32

B) 18

C) 58

D) 29

Use the chart below to answer the question.

OPTION	COST
Monitor	
a) 17" (15.9" viewable)	Included
b) VF 720 (increased visibility)	\$95 extra
c) No monitor	\$130 less
d) Flatscreen VPF 1500, 15"	\$780 extra
Memory	
e) 64 MB, 133 MHz, SDRAM	Included
f) 96 MB of memory	\$165 extra
Software	
g) T-Shirt Maker	\$85
h) Deluxe Greeting Card	\$155

226) If the cost of the computer is \$899, estimate the cost, to the nearest hundred, of the computer with options (d), (f), and (g).

226) _____

A) \$2000

B) \$1200

C) \$1100

D) \$2100

227) Matt has a budget of \$1184. Can he afford to buy the computer for \$799 with options (a), (e), and (g)?

227) _____

A) Yes

B) No

- 228) Matt has a budget of \$1379. Can he afford to buy the computer for \$899 with options (b), (e), and (g)? 228) _____
- A) No B) Yes

Estimate by rounding as indicated.

- 229) Jane runs 14 miles a day. Estimate the total number of miles Jane runs in 46 days by rounding each number to the nearest ten. 229) _____
- A) 1000 mi B) 2000 mi C) 400 mi D) 500 mi

- 230) An appliance store sells 66 refrigerators a week. Estimate the total amount of money the store makes in a week if each refrigerator costs \$917. Round the number of refrigerators to the nearest ten and the cost to the nearest hundred. 230) _____
- A) \$63,000 B) \$70,000 C) \$60,000 D) \$54,000

- 231) James' drive from home to work is 29 miles one way. If in a month he goes to work 19 days, then how many miles does he drive going from home to work and back in one month? Estimate by rounding both numbers to the nearest ten. 231) _____
- A) 1200 mi B) 900 mi C) 1750 mi D) 1500 mi

- 232) An assembly line can produce 353 bicycles each hour. Estimate the number of bicycles produced in 17 hours by rounding the number of bicycles to the nearest hundred and the number of hours to the nearest ten. Also find the exact number of bicycles produced. 232) _____
- A) Estimate: 140,000 bicycles; exact: 7060 bicycles
B) Estimate: 5950 bicycles; exact: 7060 bicycles
C) Estimate: 8000 bicycles; exact: 6001 bicycles
D) Estimate: 5950 bicycles; exact: 6001 bicycles

- 233) Lisa stashed in an envelope on her dresser \$446 each week for 6 weeks. Estimate the total amount she saved by rounding the weekly amount to the nearest hundred. Also find the exact amount she saved. 233) _____
- A) Estimate: \$2400; exact: \$2700 B) Estimate: \$2400; exact: \$2676
C) Estimate: \$2700; exact: \$2676 D) Estimate: \$2700; exact: \$2700

- 234) There are 27,878,400 square feet in one square mile. How many square feet are there in 33 square miles? Estimate by rounding the number of square feet in one square mile to the nearest ten million and the number of square miles to the nearest ten. Also find the exact answer. 234) _____
- A) Estimate: 840,000,000 sq ft; exact: 919,974,000 sq ft
B) Estimate: 900,000,000 sq ft; exact: 919,987,200 sq ft
C) Estimate: 840,000,000 sq ft; exact: 919,987,200 sq ft
D) Estimate: 900,000,000 sq ft; exact: 919,974,000 sq ft

Solve by trial.

- 235) $x + 0 = 9$ 235) _____
- A) 8 B) 11 C) 9 D) 0

236) $x + 3 = 14$ A) 15	B) 13	C) 10	D) 11	236) _____
237) $x - 4 = 13$ A) 7	B) 22	C) 19	D) 17	237) _____
238) $y \cdot 3 = 0$ A) 2	B) 4	C) 0	D) 3	238) _____
239) $y \cdot 2 = 12$ A) 7	B) 0	C) 6	D) 5	239) _____
240) $54 \div n = 9$ A) 6	B) 7	C) 8	D) 4	240) _____
241) $72 \div n = 6$ A) 13	B) 12	C) 10	D) 120	241) _____
Solve.				
242) $x = 3330 + 4208$ A) 7501	B) 7538	C) 8538	D) 7438	242) _____
243) $x = 40,283 + 11,926$ A) 52,209	B) 51,209	C) 52,266	D) 52,109	243) _____
244) $x = 784 - 362$ A) 422	B) 1146	C) 412	D) 432	244) _____
245) $7776 - 1772 = x$ A) 6004	B) 9548	C) 5904	D) 6104	245) _____
246) $y = 3 \cdot 8$ A) 34	B) 240	C) 24	D) 22	246) _____
247) $z = 49 \cdot 25$ A) 1225	B) 12,250	C) 74	D) 122,500	247) _____
248) $162 \div 2 = q$ A) 81	B) 91	C) 324	D) 160	248) _____
249) $x = 144 \div 16$ A) 2304	B) 7	C) 90	D) 9	249) _____

250) $x + 3 = 28$ A) 25	B) 31	C) 84	D) 15	250) _____
251) $5 + y = 23$ A) 115	B) 28	C) 16	D) 18	251) _____
252) $25 = 4 + x$ A) 21	B) 11	C) 31	D) 27	252) _____
253) $x + 141 = 681$ A) 550	B) 96,021	C) 540	D) 822	253) _____
254) $395 + y = 841$ A) 332,195	B) 444	C) 446	D) 1236	254) _____
255) $819 = 202 + x$ A) 617	B) 627	C) 607	D) 623	255) _____
256) $8 = 8 + m$ A) 1	B) 0	C) 16	D) 4	256) _____
257) $44 + x = 71$ A) 98	B) 3124	C) 27	D) 115	257) _____
258) $x + 36 = 124$ A) 88	B) 212	C) 4464	D) 160	258) _____
259) $3458 + y = 4688$ A) 1409	B) 5918	C) 1376	D) 1230	259) _____
260) $5358 = 541 + t$ A) 4082	B) 4817	C) 3541	D) 5899	260) _____
261) $4 \cdot x = 32$ A) 7	B) 32	C) 128	D) 8	261) _____
262) $3 \cdot y = 90$ A) 31	B) 32	C) 33	D) 30	262) _____
263) $144 = m \cdot 8$ A) 1152	B) 8	C) 144	D) 18	263) _____

- 264) $952 = 4 \cdot w$ 264) _____
 A) 4 B) 948 C) 3808 D) 238
- 265) $7 \cdot z = 3066$ 265) _____
 A) 440 B) 436 C) 434 D) 438
- 266) $752 = n \cdot 16$ 266) _____
 A) 47 B) 736 C) 752 D) 12,032
- 267) $20 \cdot x = 1760$ 267) _____
 A) 87 B) 85 C) 88 D) 83
- 268) $96 \cdot m = 19,008$ 268) _____
 A) 199 B) 18,912 C) 198 D) 18,911

Solve the problem.

- 269) During the last four months of a recent year, Annie's Natural Food Store reported the following sales. 269) _____

September	\$3902
October	\$3648
November	\$3976
December	\$2924

What were the total sales over this period?

- A) \$14,450 B) \$14,550 C) \$14,560 D) \$14,460
- 270) During the last four months of a recent year, Annie's Natural Food Store reported the following sales. 270) _____

September	\$3087
October	\$2891
November	\$2377
December	\$4224

How much more were the sales in December than the sales in November?

- A) \$1847 B) \$6501 C) \$6601 D) \$1747
- 271) Pete is driving across country from Boston to Seattle. He keeps a record of the distance that he drives each day. 271) _____

Monday	499 miles
Tuesday	297 miles
Wednesday	200 miles
Thursday	277 miles
Friday	333 miles

How much further did he drive on Monday than on Friday?

- A) 222 miles B) 832 miles C) 166 miles D) 499 miles

- 272) Pete is driving across country from Boston to Seattle. He keeps a record of the distance that he drives each day.
- | | |
|-----------|-----------|
| Monday | 416 miles |
| Tuesday | 328 miles |
| Wednesday | 244 miles |
| Thursday | 322 miles |
| Friday | 285 miles |
- What was his total mileage for the first three days of the week?
- A) 1088 miles B) 1595 miles C) 988 miles D) 978 miles
- 273) The height of the tallest building in the town of Chorlton is 1239 feet. It is 196 feet taller than the second tallest building. What is the height of the second tallest building in Chorlton?
- A) 1435 feet B) 1042 feet C) 1434 feet D) 1043 feet
- 274) The balance in your checking account is \$865. You write checks for \$57, \$46, and \$146. You then deposit \$124 from your paycheck. What is your new balance?
- A) \$492 B) \$730 C) \$740 D) \$1238
- 275) An employee was paid \$13,647 during the first half of last year. During the second half he was paid \$66,643. How much more was his income during the second half?
- A) \$80,290 B) \$80,280 C) \$52,986 D) \$52,996
- 276) The list price of a car is \$14,998. The manufacturer offers a rebate of \$737. What is the final price of the car?
- A) \$15,635 B) \$14,161 C) \$14,261 D) \$15,735
- 277) The dimensions of a rectangular yard are 26 feet by 102 feet. What is its perimeter?
- A) 128 feet B) 154 feet C) 2652 feet D) 256 feet
- 278) Mark's typing speed is 79 words per minute. How many words can he type in 35 minutes?
- A) 114 words B) 2665 words C) 2765 words D) 2775 words
- 279) Mr. and Mrs. Gutierrez borrow \$5200 to buy a new car. The loan is to be paid off in 26 monthly payments. How much is each payment?
- A) \$20 B) \$5226 C) \$200 D) \$5174
- 280) 373 chocolates are to be packed into boxes, each of which will contain 12 chocolates. How many boxes of chocolates will there be? How many chocolates will be left over?
- A) 31 boxes; no chocolates left over B) 30 boxes; 2 chocolates left over
C) 31 boxes; 1 chocolates left over D) 30 boxes; 1 chocolates left over
- 281) Each box of matches contains 120 matches. Boxes of matches are shipped in cartons. Each carton contains 5 boxes of matches. How many matches are in each carton?
- A) 60 matches per carton B) 24 matches per carton
C) 125 matches per carton D) 600 matches per carton

- 282) David's company has to ship 3300 boxes of sprinklers. If a truck can hold 550 boxes, how many truckloads does he need to ship all the boxes? 282) _____
 A) 5 truckloads B) 4 truckloads C) 6 truckloads D) 7 truckloads
- 283) A map has a scale of 4 miles to the inch. How far apart in reality are two cities that are 20 inches apart on the map? How far apart on the map are two cities that, in reality, are 20 miles apart? 283) _____
 A) 80 miles; 5 inches B) 5 miles; 80 inches
 C) 5 miles; 5 inches D) 80 miles; 80 inches
- 284) A spreadsheet contains 550 entries in a rectangular array which has 25 rows. How many entries are in each row? 284) _____
 A) 32 entries B) 525 entries C) 13,750 entries D) 22 entries
- 285) Danny buys 5 books at \$32 each and pays for them with 10-dollar bills. How many \$10 bills did it take? 285) _____
 A) 160 10-dollar bills B) 150 10-dollar bills
 C) 4 10-dollar bills D) 16 10-dollar bills
- 286) A travel agent arranged a payment plan for a client. It required a down payment of \$250 and 12 monthly payments of \$633. What was the total cost of the plan? 286) _____
 A) \$7846 B) \$7696 C) \$7596 D) \$7746
- 287) A community garden contains 30 rectangular plots each measuring 6 yd by 9 yd. What is the total area available for gardening? 287) _____
 A) 1650 sq yd B) 900 sq yd C) 1620 sq yd D) 54 sq yd

Write exponential notation.

- 288) $4 \cdot 4$ 288) _____
 A) $2 \cdot 4$ B) 2^4 C) 4^2 D) 4^3
- 289) $8 \cdot 8 \cdot 8$ 289) _____
 A) 8^1 B) $3 \cdot 8$ C) 8^3 D) 3^8
- 290) $7 \cdot 7 \cdot 7 \cdot 7$ 290) _____
 A) 28 B) 7^4 C) 4^7 D) 7^2
- 291) $4 \cdot 4 \cdot 4 \cdot 4 \cdot 4$ 291) _____
 A) 4^0 B) $5 \cdot 4$ C) 4^5 D) 5^4
- 292) $17 \cdot 17 \cdot 17 \cdot 17$ 292) _____
 A) 17^1 B) 4^{15} C) $4 \cdot 17$ D) 17^4

293) $13 \cdot 13 \cdot 13 \cdot 13 \cdot 13$

A) 13^5

B) $5 \cdot 5^{15}$

C) 5^{15}

D) $5 \cdot 13$

293) _____

Evaluate.

294) 10^2

A) 1024

B) 121

C) 20

D) 100

294) _____

295) 7^3

A) 21

B) 216

C) 343

D) 2187

295) _____

296) 9^4

A) 262,144

B) 36

C) 6561

D) 729

296) _____

297) 10^5

A) 50

B) 9,765,625

C) 1,000,000

D) 100,000

297) _____

Simplify.

298) $240 \div 8 - 3$

A) 229

B) 27

C) 48

D) 235

298) _____

299) $7^2 + 8^2$

A) 113

B) 60

C) 225

D) 30

299) _____

300) $13 + 29 \cdot 25$

A) 402

B) 67

C) 1050

D) 738

300) _____

301) $5 \cdot 5 - 3$

A) 10

B) 28

C) 75

D) 22

301) _____

302) $8 \cdot 10 - 8 \cdot 4$

A) 64

B) 48

C) 288

D) 2560

302) _____

303) $87 - 3 \cdot 4 \cdot 2$

A) 150

B) 672

C) 63

D) 78

303) _____

304) $6^3 \div 12 - 10$

A) 214

B) 27

C) 8

D) 108

304) _____

305) $10^2 - 4 \cdot 7$

A) 420

B) 252

C) 672

D) 72

305) _____

- 306) $10^2 + 4^2 \div 2^2$ A) 120 B) 49 C) 104 D) 29 306) _____
- 307) $2^{15} \div 2^8 \cdot 2^3 \div 2^4$ A) 2048 B) 1 C) 256 D) 64 307) _____
- 308) $(3 + 5)^2$ A) 64 B) 34 C) 14 D) 28 308) _____
- 309) $56 - (25 - 7)$ A) 38 B) 31 C) 18 D) 24 309) _____
- 310) $144 \div (12 \div 4)$ A) 12 B) 48 C) 3 D) 141 310) _____
- 311) $(14 - 12)^2 + (5 + 3)^2$ A) 38 B) 100 C) 68 D) 86 311) _____
- 312) $9 \cdot 9 + 8(6 + 2) + 2$ A) 1226 B) 161 C) 133 D) 147 312) _____
- 313) $520 \div 13 - (5 + 3)$ A) 38 B) 35 C) 32 D) 104 313) _____
- 314) $3 \cdot (3 + 4)^2 - 3 \cdot (5 - 3)^2$ A) 405 B) 135 C) 576 D) 157 314) _____
- 315) $11^2 + 9 \cdot 10 - (9 + 6 \cdot 6)$ A) 1255 B) 166 C) 121 D) 238 315) _____
- 316) $6 \cdot 12 - (14 - 11) \div 3 - (8 - 7)$ A) 70 B) 15 C) 22 D) 56 316) _____
- 317) $360 - 3^4 \cdot 24 \div (4 \cdot 3 - 2 \cdot 2)$ A) 837 B) 117 C) 554 D) 194 317) _____

Find the average.

- 318) Ages of patients (in years) in a clinic: 19, 5, 28, 19 318) _____
 (Round to the nearest whole number)
 A) 18 years B) 19 years C) 17 years D) 5 years

- 319) Scores on a math test: 77 42 77 97 42
 A) 66 B) 97 C) 67 D) 42 319) _____
- 320) Monthly checking account fees: \$16, \$9, \$4, \$10, \$8, \$3, \$6
 A) \$8 B) \$7 C) \$6 D) \$10 320) _____
- Simplify.
- 321) $8 \times 3 + \{12 \div [8 - (3 + 2)]\}$
 A) 27 B) 29 C) 30 D) 28 321) _____
- 322) $81 \div 3 + \{5 \times [18 - (6 \times 2)]\}$
 A) 52 B) 57 C) 60 D) 47 322) _____
- 323) $[20 - (4 + 6) \div 2] - [1 + 12 \div 3]$
 A) 17 B) 10 C) 7 D) 5 323) _____
- 324) $(70 - 19) \times [(80 + 10 \div 5) - (6 \cdot 6 - 5 \cdot 5)]$
 A) 3585 B) 3678 C) 3621 D) 3721 324) _____
- 325) $4 \times (300 - 20 \div 5) - [3 \cdot 26 - (8 - 2 \cdot 3)]$
 A) 1108 B) 2884 C) 1058 D) 392 325) _____
- 326) $\{[57 - 2 \cdot 2] - [78 \div (1 + 2)]\} \cdot 5$
 A) 190 B) 165 C) 125 D) 135 326) _____
- 327) $8(9 - 3 \cdot 2)^2 \div (2 \cdot 4)$
 A) 144 B) 3 C) 12 D) 9 327) _____

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

Provide an appropriate response.

- 328) You go to the bank to cash three checks. The checks are for \$42.56, \$157.20, and \$70.44. You are given \$227.64 by the teller. Estimate to see if the amount given you seems to be correct. Does \$227.64 seem to be correct? Explain your answer. 328) _____
- 329) You go to the bank to cash three checks. The checks are for \$41.64, \$133.35, and \$94.24. You are given \$269.23 by the teller. Estimate to see if the amount given you seems to be correct. Does \$269.23 seem to be correct? Explain your answer. 329) _____
- 330) Explain in your own words the commutative law of addition. 330) _____

- 331) For any division sentence there is a corresponding multiplication sentence. For example, for the division statement $12 \div 4 = 3$, the corresponding multiplication sentence is $3 \times 4 = 12$. Consider the division problem $8 \div 0$. What do you think the answer is to this division problem? Consider the corresponding multiplication sentence. What conclusion do you arrive at? Explain your answer. 331) _____
- 332) Is division commutative? Explain your answer. 332) _____
- 333) The expression $8 + (4 \div 2)$ contains parentheses. Are they necessary? Explain. 333) _____
- 334) The expression $(3 + 5) \div 2$ contains parentheses. Are they necessary? Explain. 334) _____

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

Determine if the second number is a factor of the first number.

- 335) 32; 32 335) _____
 A) Yes B) No
- 336) 42; 14 336) _____
 A) Yes B) No
- 337) 12; 72 337) _____
 A) Yes B) No
- 338) 55; 16 338) _____
 A) Yes B) No
- 339) 780; 40 339) _____
 A) Yes B) No

Find all the factors of the number.

- 340) 30 340) _____
 A) 1, 5, 6, 30 B) 1, 2, 3, 5, 6, 10, 20, 30
 C) 5, 6, 10, 30 D) 1, 2, 3, 5, 6, 10, 15, 30
- 341) 28 341) _____
 A) 1, 2, 4, 7, 8, 14, 28 B) 1, 2, 4, 7, 14, 28
 C) 2, 7, 14, 28 D) 1, 2, 7, 14, 28
- 342) 36 342) _____
 A) 1, 2, 3, 4, 6, 9, 12, 18, 36 B) 1, 2, 3, 4, 5, 6, 9, 10, 12, 18, 36
 C) 2, 4, 6, 12, 18, 36 D) 1, 2, 4, 6, 12, 18, 36

343) 45
 A) 1, 3, 5, 9, 15, 30, 45
 C) 1, 3, 5, 15, 45
 B) 1, 2, 3, 5, 9, 15, 30, 45
 D) 1, 3, 5, 9, 15, 45
 343) _____

344) 56
 A) 1, 2, 3, 4, 7, 8, 14, 18, 28, 56
 C) 1, 2, 4, 7, 8, 14, 28, 56
 B) 1, 2, 4, 7, 8, 14, 18, 28, 56
 D) 2, 4, 7, 8, 14, 28
 344) _____

345) 63
 A) 1, 3, 5, 7, 9, 11, 21, 63
 C) 1, 3, 7, 9, 21, 63
 B) 3, 5, 7, 9, 11, 21, 63
 D) 1, 2, 3, 7, 9, 21, 36, 63
 345) _____

346) 66
 A) 1, 2, 3, 4, 11, 16, 22, 33, 66
 C) 1, 2, 3, 6, 11, 22, 33, 66
 B) 1, 2, 3, 9, 11, 22, 33, 66
 D) 1, 3, 11, 22, 33, 66
 346) _____

347) 70
 A) 1, 2, 3, 5, 7, 9, 15, 35, 70
 C) 1, 3, 5, 7, 9, 15, 20, 35, 70
 B) 1, 2, 5, 7, 35, 70
 D) 1, 2, 5, 7, 10, 14, 35, 70
 347) _____

348) 72
 A) 1, 2, 3, 4, 6, 9, 12, 14, 18, 24, 36, 72
 C) 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 18, 24, 36, 72
 B) 1, 2, 3, 4, 6, 8, 9, 12, 24, 36, 72
 D) 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72
 348) _____

349) 84
 A) 1, 2, 3, 4, 7, 14, 21, 28, 42, 84
 C) 1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42, 84
 B) 1, 2, 3, 4, 6, 7, 12, 14, 21, 42, 84
 D) 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 14, 21, 28, 42, 84
 349) _____

Multiply by 1, 2, 3, and so on, to find ten multiples of the number.

350) 2
 A) 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
 C) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
 B) 2, 3, 4, 5, 6, 7, 8, 9, 10, 11
 D) 0, 2, 4, 6, 8, 10, 12, 14, 16, 18
 350) _____

351) 20
 A) 20, 30, 40, 50, 60, 70, 80, 90, 100, 110
 C) 20, 50, 80, 110, 140, 170, 200, 230, 260, 290
 B) 20, 40, 60, 80, 100, 120, 140, 160, 180, 200
 D) 0, 25, 30, 35, 40, 45, 50, 55, 60, 65
 351) _____

352) 19
 A) 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
 C) 19, 21, 24, 28, 33, 39, 46, 54, 63, 73
 B) 0, 19, 38, 57, 76, 95, 114, 133, 152, 171
 D) 19, 38, 57, 76, 95, 114, 133, 152, 171, 190
 352) _____

353) 75 353) _____
 A) 75, 85, 95, 105, 115, 125, 135, 145, 155, 165
 B) 0, 80, 85, 90, 95, 100, 105, 110, 115, 120
 C) 75, 150, 225, 300, 375, 450, 525, 600, 675, 750
 D) 75, 175, 275, 375, 475, 575, 675, 775, 875, 975

354) 23 354) _____
 A) 23, 46, 69, 92, 115, 138, 161, 184, 207, 230 B) 23, 33, 43, 53, 63, 73, 83, 93, 103, 113
 C) 23, 24, 25, 26, 27, 28, 29, 30, 31, 32 D) 23, 25, 28, 32, 37, 43, 50, 58, 67, 77

355) 300 355) _____
 A) 0, 300, 600, 900, 1200, 1500, 1800, 2100, 2400, 2700
 B) 300, 600, 900, 1200, 1500, 1800, 2100, 2400, 2700, 3000
 C) 300, 350, 400, 450, 500, 550, 600, 650, 700, 750
 D) 300, 310, 320, 330, 340, 350, 360, 370, 380, 390

Determine whether the first number is divisible by the second number.

356) 70; 7 356) _____
 A) Yes B) No

357) 33; 9 357) _____
 A) Yes B) No

358) 414; 6 358) _____
 A) Yes B) No

359) 545; 8 359) _____
 A) Yes B) No

360) 308; 14 360) _____
 A) Yes B) No

361) 351; 24 361) _____
 A) Yes B) No

362) 2163; 3 362) _____
 A) Yes B) No

363) 1938; 9 363) _____
 A) Yes B) No

364) 1890; 18 364) _____
 A) Yes B) No

365) 4485; 25
A) Yes

B) No

365) _____

Determine whether the number is prime, composite, or neither.

366) 1
A) Composite

B) Neither

C) Prime

366) _____

367) 2
A) Neither

B) Prime

C) Composite

367) _____

368) 21
A) Prime

B) Neither

C) Composite

368) _____

369) 89
A) Neither

B) Composite

C) Prime

369) _____

370) 90
A) Prime

B) Composite

C) Neither

370) _____

Find the prime factorization of the number.

371) 6
A) $2 + 3$

B) $2 \cdot 3$

C) $2 \cdot 5$

D) $2 \cdot 4$

371) _____

372) 26
A) $2 \cdot 2 \cdot 2$

B) $2 \cdot 2 \cdot 5$

C) $2 \cdot 14$

D) $2 \cdot 13$

372) _____

373) 12
A) $4 \cdot 2$

B) $2 \cdot 2 \cdot 3$

C) $3 \cdot 3$

D) $4 \cdot 3$

373) _____

374) 105
A) $15 \cdot 7$

B) $5 \cdot 5 \cdot 3$

C) $3 \cdot 5 \cdot 7$

D) $3 \cdot 3 \cdot 7$

374) _____

375) 58
A) $2 \cdot 2 \cdot 29$

B) $2 \cdot 27$

C) $2 \cdot 29$

D) $2 \cdot 2$

375) _____

376) 126
A) $2 \cdot 3 \cdot 7$

B) $2 \cdot 2 \cdot 3 \cdot 3 \cdot 7$

C) $14 \cdot 3 \cdot 3$

D) $2 \cdot 3 \cdot 3 \cdot 7$

376) _____

377) 48
A) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 3$
C) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 5$

B) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 3$
D) $2 \cdot 2 \cdot 2 \cdot 2$

377) _____

378) 645				378) _____
A) $3 \cdot 3 \cdot 43$	B) $5 \cdot 5 \cdot 43$	C) $15 \cdot 43$	D) $3 \cdot 5 \cdot 43$	

Determine whether the number is divisible by 2, 3, 4, 5, 6, 8, 9, and/or 10.

379) 40				379) _____
A) 2, 4, 5, 8, 10	B) 2, 4, 5	C) 2, 4, 5, 10	D) 2, 4, 5, 8	

380) 14,200				380) _____
A) 2, 4, 5, 8	B) 2, 5, 8, 10	C) 2, 4, 5	D) 2, 5, 4, 8, 10	

381) 59				381) _____
A) 3, 5	B) None	C) 3, 9	D) 3	

382) 3431				382) _____
A) 3, 5	B) 3, 9	C) None	D) 3	

383) 273,829				383) _____
A) 3, 5	B) 3	C) 5	D) None	

384) 2542				384) _____
A) 2	B) 2, 3, 4	C) 4	D) 3, 4	

385) 1326				385) _____
A) 4, 5, 6	B) 2, 3, 4	C) 3, 4, 6	D) 2, 3, 6	

386) 2365				386) _____
A) 5, 10	B) 5	C) 10	D) 2, 5, 10	

387) 9717				387) _____
A) 3, 9	B) 9	C) 2, 3, 9	D) 3	

388) 57,620				388) _____
A) 2, 5	B) 4, 5	C) 4, 5, 10	D) 2, 4, 5, 10	

Find the LCM of the set of numbers.

389) 5, 20				389) _____
A) 20	B) 5	C) 100	D) 4	

390) 8, 7				390) _____
A) 56	B) 8	C) 15	D) 28	

391) 12, 16				391) _____
A) 48	B) 16	C) 28	D) 192	

392) 14, 21 A) 294	B) 21	C) 42	D) 35	392) _____
393) 21, 30 A) 51	B) 30	C) 210	D) 630	393) _____
394) 50, 90 A) 450	B) 90	C) 4500	D) 140	394) _____
395) 8, 56 A) 8	B) 448	C) 56	D) 64	395) _____
396) 18, 19 A) 37	B) 171	C) 19	D) 342	396) _____
397) 75, 175 A) 525	B) 175	C) 250	D) 13,125	397) _____
398) 12, 35 A) 840	B) 630	C) 210	D) 420	398) _____
399) 2, 5, 11 A) 55	B) 18	C) 10	D) 110	399) _____
400) 6, 12, 18 A) 12	B) 18	C) 216	D) 36	400) _____
401) 2, 5, 24 A) 10	B) 240	C) 24	D) 120	401) _____
402) 9, 18, 22 A) 198	B) 3564	C) 22	D) 396	402) _____
403) 24, 18, 44 A) 1056	B) 264	C) 396	D) 792	403) _____
404) 30, 80, 70 A) 1680	B) 560	C) 240	D) 840	404) _____
405) 24, 54, 9 A) 216	B) 72	C) 54	D) 108	405) _____

- | | | | | |
|---------------------|---------|---------|---------|------------|
| 406) 18, 24, 56 | | | | 406) _____ |
| A) 1512 | B) 432 | C) 1008 | D) 504 | |
| 407) 6, 8, 10, 12 | | | | 407) _____ |
| A) 120 | B) 60 | C) 108 | D) 90 | |
| 408) 27, 42, 24, 56 | | | | 408) _____ |
| A) 3024 | B) 1512 | C) 1296 | D) 4536 | |

Solve the problem.

- | | |
|--|------------|
| 409) At a national computer show, two software companies continuously run videos showing their products. Company A's video repeats every 6 minutes, while Company B's video repeats every 15 minutes. If both companies begin the videos at 1:00 P.M. when the show opens, how many minutes will elapse before they are in sync again? | 409) _____ |
| A) 10 minutes B) 30 minutes C) 60 minutes D) 20 minutes | |
| 410) Tom and Larry are food inspectors at a cookie making company. Tom tests every 16th batch of dough for fat percentage. Larry tests every 28th batch of dough for carbohydrate percentage. If they both start working at the same time, which batch will be the first that they both test? | 410) _____ |
| A) The 56th batch B) The 112th batch
C) The 28th batch D) The 224th batch | |
| 411) Cory and Melissa are racing electronic cars around a circular track. They begin at the same time going in the same direction. Cory's car completes a revolution in 35 seconds, while Melissa's car completes a revolution in 30 seconds. How long will it take them before both cars reach the starting point again simultaneously? | 411) _____ |
| A) 42 seconds B) 210 seconds C) 420 seconds D) 84 seconds | |
| 412) Robert has built a mechanical model solar system with three balls representing planets at the ends of rods attached to the center representing the sun. The planets are aligned when he turns on the motor. The innermost planet makes a revolution in 12 seconds, the middle planet makes a revolution in 30 seconds, and the outermost planet makes a revolution in 42 seconds. After how many seconds will the planets be aligned again? | 412) _____ |
| A) 630 seconds B) 840 seconds C) 210 seconds D) 420 seconds | |
| 413) A cereal manufacturer uses three large overhead bins to hold the three ingredients in one of its cereal mixes. Bin A delivers a premeasured quantity of dried fruit every 10 minutes, bin B delivers raisins every 35 minutes, and bin C delivers flakes every 15 minutes. If they start the morning shift at the same time, how long before they deliver their ingredients at the same time again? | 413) _____ |
| A) 105 minutes B) 210 minutes C) 420 minutes D) 42 minutes | |

- 414) The earth, Jupiter, Saturn, and Neptune all revolve around the sun. The earth takes 1 year, Jupiter approximately 12 years, Saturn approximately 30 years, and Neptune approximately 165 years to make a complete revolution. How often will Jupiter and Neptune appear in the same direction in the night sky as seen from earth?
[Hint: Find the LCM of 12 and 165]
- A) Every 330 years
B) Every 1980 years
C) Every 1320 years
D) Every 660 years
- 415) The earth, Jupiter, Saturn, and Neptune all revolve around the sun. The earth takes 1 year, Jupiter approximately 12 years, Saturn approximately 30 years, and Neptune approximately 165 years to make a complete revolution. How often will Saturn and Neptune appear in the same direction in the night sky as seen from earth?
[Hint: Find the LCM of 30 and 165]
- A) Every 330 years
B) Every 990 years
C) Every 4950 years
D) Every 1650 years
- 416) The earth, Jupiter, Saturn, and Neptune all revolve around the sun. The earth takes 1 year, Jupiter approximately 12 years, Saturn approximately 30 years, and Neptune approximately 165 years to make a complete revolution. How often will Jupiter, Saturn, and Neptune appear in the same direction in the night sky as seen from earth?
[Hint: Find the LCM of 12, 30, and 165]
- A) Every 660 years
B) Every 3300 years
C) Every 330 years
D) Every 1980 years

Answer Key

Testname: UNTITLED1

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

Answer Key

Testname: UNTITLED1

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

Answer Key

Testname: UNTITLED1

- 85) D
- 86) D
- 87) C
- 88) D
- 89) D
- 90) C
- 91) D
- 92) D
- 93) C
- 94) A
- 95) A
- 96) B
- 97) D
- 98) B
- 99) B
- 100) B
- 101) C
- 102) B
- 103) C
- 104) A
- 105) B
- 106) B
- 107) B
- 108) D
- 109) C
- 110) C
- 111) D
- 112) B
- 113) A
- 114) C
- 115) D
- 116) C
- 117) D
- 118) D
- 119) A
- 120) B
- 121) A
- 122) C
- 123) A
- 124) B
- 125) A
- 126) C

Answer Key

Testname: UNTITLED1

- 127) B
- 128) D
- 129) B
- 130) C
- 131) C
- 132) B
- 133) D
- 134) A
- 135) D
- 136) C
- 137) A
- 138) D
- 139) D
- 140) D
- 141) D
- 142) A
- 143) D
- 144) C
- 145) A
- 146) B
- 147) A
- 148) C
- 149) A
- 150) C
- 151) A
- 152) B
- 153) A
- 154) A
- 155) D
- 156) D
- 157) D
- 158) B
- 159) A
- 160) D
- 161) C
- 162) A
- 163) B
- 164) A
- 165) C
- 166) B
- 167) A
- 168) C

Answer Key

Testname: UNTITLED1

- 169) A
- 170) B
- 171) C
- 172) C
- 173) B
- 174) D
- 175) D
- 176) D
- 177) A
- 178) A
- 179) B
- 180) A
- 181) D
- 182) B
- 183) C
- 184) D
- 185) D
- 186) A
- 187) D
- 188) C
- 189) A
- 190) B
- 191) A
- 192) B
- 193) C
- 194) C
- 195) D
- 196) B
- 197) D
- 198) D
- 199) B
- 200) D
- 201) D
- 202) B
- 203) B
- 204) D
- 205) C
- 206) C
- 207) C
- 208) B
- 209) B
- 210) C

Answer Key

Testname: UNTITLED1

- 211) B
- 212) C
- 213) B
- 214) A
- 215) B
- 216) D
- 217) C
- 218) C
- 219) D
- 220) D
- 221) D
- 222) B
- 223) A
- 224) B
- 225) D
- 226) A
- 227) A
- 228) B
- 229) D
- 230) A
- 231) A
- 232) C
- 233) B
- 234) B
- 235) C
- 236) D
- 237) D
- 238) C
- 239) C
- 240) A
- 241) B
- 242) B
- 243) A
- 244) A
- 245) A
- 246) C
- 247) A
- 248) A
- 249) D
- 250) A
- 251) D
- 252) A

Answer Key

Testname: UNTITLED1

- 253) C
- 254) C
- 255) A
- 256) B
- 257) C
- 258) A
- 259) D
- 260) B
- 261) D
- 262) D
- 263) D
- 264) D
- 265) D
- 266) A
- 267) C
- 268) C
- 269) A
- 270) A
- 271) C
- 272) C
- 273) D
- 274) C
- 275) D
- 276) C
- 277) D
- 278) C
- 279) C
- 280) C
- 281) D
- 282) C
- 283) A
- 284) D
- 285) D
- 286) A
- 287) C
- 288) C
- 289) C
- 290) B
- 291) C
- 292) D
- 293) A
- 294) D

Answer Key

Testname: UNTITLED1

295) C

296) C

297) D

298) B

299) A

300) D

301) D

302) B

303) C

304) C

305) D

306) C

307) D

308) A

309) A

310) B

311) C

312) D

313) C

314) B

315) B

316) A

317) B

318) A

319) C

320) A

321) D

322) B

323) B

324) C

325) A

326) D

327) D

328) No; When the value of the checks is rounded to the nearest \$10, the sum is not close to \$227.64.

329) Yes; When the value of the checks is rounded to the nearest \$10, the sum is close to \$269.23.

330) Numbers can be added in any order and have the same sum.

331) There is no number that when multiplied by 0 will equal 8. Division by 0 is undefined for any real number.

332) No. $a \div b$ does not always equal $b \div a$.

333) No. Without the parentheses the procedure would be the same. Division is done before addition.

$$8 + (4 \div 2) = 8 + 4 \div 2 = 10.$$

334) Yes. Without the parentheses 5 would be divided by 2, then that answer would be added to 3. $(3 + 5) \div 2 = 4$ and

$$3 + 5 \div 2 = 5.5.$$

335) A

Answer Key

Testname: UNTITLED1

- 336) A
- 337) B
- 338) B
- 339) B
- 340) D
- 341) B
- 342) A
- 343) D
- 344) C
- 345) C
- 346) C
- 347) D
- 348) D
- 349) C
- 350) A
- 351) B
- 352) D
- 353) C
- 354) A
- 355) B
- 356) A
- 357) B
- 358) A
- 359) B
- 360) A
- 361) B
- 362) A
- 363) B
- 364) A
- 365) B
- 366) B
- 367) B
- 368) C
- 369) C
- 370) B
- 371) B
- 372) D
- 373) B
- 374) C
- 375) C
- 376) D
- 377) B

Answer Key

Testname: UNTITLED1

- 378) D
- 379) A
- 380) D
- 381) B
- 382) C
- 383) D
- 384) A
- 385) D
- 386) B
- 387) D
- 388) D
- 389) A
- 390) A
- 391) A
- 392) C
- 393) C
- 394) A
- 395) C
- 396) D
- 397) A
- 398) D
- 399) D
- 400) D
- 401) D
- 402) A
- 403) D
- 404) A
- 405) A
- 406) D
- 407) A
- 408) B
- 409) B
- 410) B
- 411) B
- 412) D
- 413) B
- 414) D
- 415) A
- 416) A