

***Developmental Mathematics 10th edition Bittinger
Test Bank***

SKU: 9780135229910-TEST-BANK

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 thousands
- D) 7 hundred thousands

Answer: B

2) What does the digit 4 mean in the number 247,189?

- A) 4 hundred thousands
- C) 4 hundreds

- B) 4 ten thousands
- D) 4 thousands

Answer: B

3) What does the digit 2 mean in the number 247,189?

- A) 2 ten thousands
- C) 2 hundred thousands

- B) 2 thousands
- D) 2 hundreds

Answer: C

4) What does the digit 4 mean in the number 189,247?

- A) 4 hundreds
- B) 4 tens

- C) 4 thousands
- D) 4 ones

Answer: B

5) What does the digit 2 mean in the number 189,247?

- A) 2 tens
- C) 2 thousands

- B) 2 hundred thousands
- D) 2 hundreds

Answer: D

6) What does the digit 7 mean in the number 189,247?

- A) 7 tens
- B) 7 hundreds

- C) 7 thousands
- D) 7 ones

Answer: D

7) What does the digit 3 mean in the number 301,475?

- A) 3 thousands
- C) 3 hundreds

- B) 3 hundred thousands
- D) 3 ten thousands

Answer: B

8) What does the digit 0 mean in the number 301,475?

- A) 0 hundred thousands
- C) 0 thousands

- B) 0 ones
- D) 0 ten thousands

Answer: D

9) What does the digit 4 mean in the number 301,475?

- A) 4 tens
- C) 4 hundreds

- B) 4 hundred thousands
- D) 4 thousands

Answer: C

10) What does the digit 9 mean in the number 890,236?

- A) 9 hundreds
- C) 9 hundred thousands

- B) 9 thousands
- D) 9 ten thousands

Answer: D

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

11) 3856

thousands __

tens __

A) Thousands 8, tens 5

B) Thousands 3, tens 6

C) Thousands 3, tens 5

D) Thousands 8, tens 6

Answer: C

12) 9742

hundreds __

ones __

A) Hundreds 7, ones 4

B) Hundreds 9, ones 7

C) Hundreds 4, ones 2

D) Hundreds 7, ones 2

Answer: D

13) 92,225

ten thousands __

ones __

A) Ten thousands 2, ones 2

B) Ten thousands 9, ones 5

C) Ten thousands 9, ones 2

D) Ten thousands 2, ones 5

Answer: B

14) 49,185

ten thousands __

hundreds __

A) Ten thousands 8, hundreds 1

B) Ten thousands 4, hundreds 1

C) Ten thousands 9, hundreds 5

D) Ten thousands 4, hundreds 9

Answer: B

15) 97,275

thousands __

tens __

A) Thousands 2, tens 5

B) Thousands 7, tens 5

C) Thousands 7, tens 7

D) Thousands 7, tens 9

Answer: C

16) 1,553,879

millions __

thousands __

A) Millions 1, thousands 3

B) Millions 8, thousands 7

C) Millions 5, thousands 3

D) Millions 1, thousands 5

Answer: A

17) 5,399,711

hundred thousands __

tens __

A) Hundred thousands 3, tens 1

B) Hundred thousands 9, tens 7

C) Hundred thousands 3, tens 9

D) Hundred thousands 5, tens 1

Answer: A

18) 7,838,737,338

billions _

millions _

A) Billions 7, millions 8

C) Billions 8, millions 7

B) Billions 8, millions 3

D) Billions 8, millions 8

Answer: A

Write expanded notation.

19) 384

A) 4 hundreds + 8 tens + 3 ones

C) 384 hundreds

B) 3 hundreds + 8 tens + 4 ones

D) 3 thousands + 8 hundreds + 4 tens

Answer: B

20) 8621

A) 8621 thousands

C) 8 thousands + 6 hundreds + 2 tens + 1 ones

B) 8 hundreds + 2 tens + 6 ones

D) 1 thousands + 2 hundreds + 6 tens + 8 ones

Answer: C

21) 47,819

A) 4 thousands + 7 hundreds + 8 tens + 19 ones

B) 9 ten thousands + 1 thousands + 8 hundreds + 7 tens + 4 ones

C) 47,819 ten thousands

D) 4 ten thousands + 7 thousands + 8 hundreds + 1 tens + 9 ones

Answer: D

22) 60,900

A) 6 ten thousands + 9 thousands + 0 hundreds + 0 tens + 0 ones

B) 6 ten thousands + 0 thousands + 9 hundreds + 0 tens + 0 ones

C) 6 thousands + 9 hundreds + 0 tens + 0 ones

D) 690 ten thousands + 0 tens + 0 ones

Answer: B

23) 7090

A) 7 thousands + 0 hundreds + 9 tens + 0 ones

B) 7 ten thousands + 9 thousands + 0 hundreds + 0 tens + 0 ones

C) 709 thousands

D) 7 hundreds + 0 tens + 9 ones

Answer: A

24) 80,340

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

Answer: B

25) The number of steps in a stair-climbing race held in a Chicago landmark building was 1948.

A) 1 thousands + 8 hundreds + 4 tens + 9 ones

C) 1 thousands + 9 hundreds + 4 tens + 8 ones

B) 1 thousands + 948 hundreds

D) 9 thousands + 4 hundreds + 8 tens + 0 ones

Answer: C

- 26) The number of steps in a stair-climbing race held in a Malaysian landmark building was 2827.
- A) 2 thousands + 2 hundreds + 7 tens + 8 ones B) 2 thousands + 8 hundreds + 2 tens + 7 ones
C) 2 thousands + 0 hundreds + 2 tens + 7 ones D) 8 thousands + 2 hundreds + 7 tens + 0 ones

Answer: B

- 27) The projected population in 2030 for a certain country is 280,508.
- A) 2 hundred thousands + 8 ten thousands + 0 thousands + 5 hundreds + 0 tens + 8 ones
B) 2 hundred thousands + 0 ten thousands + 8 thousands + 5 hundreds + 0 tens + 8 ones
C) 28 ten thousands + 0 thousands + 5 hundreds + 0 tens + 8 ones
D) 2 hundred thousands + 8 ten thousands + 5 thousands + 0 hundreds + 0 tens + 8 ones

Answer: A

- 28) The projected population in 2050 for a certain country is 4,297,476.
- A) 6 millions + 7 hundred thousands + 4 ten thousands + 9 thousands + 7 hundreds + 2 tens + 4 ones
B) 4 millions + 2 hundred thousands + 9 ten thousands + 7 thousands + 4 hundreds + 7 tens + 6 ones
C) 4 hundred thousands + 2 ten thousands + 9 thousands + 7 hundreds + 4 tens + 7 ones + 6
D) 4 millions + 2 hundred thousands + 9 ten thousands + 7 thousands + 4 tens + 7 ones + 6

Answer: B

- 29) The projected population in 2100 for a certain country is 37,406,001.
- A) 3 ten millions + 7 millions + 4 hundred thousands + 0 ten thousands + 0 thousands + 6 hundreds + 0 tens + 1 ones
B) 3 ten millions + 0 millions + 7 hundred thousands + 4 ten thousands + 6 thousands + 0 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

Answer: C

Write the number in words.

- 30) 135,060
- A) One hundred thirty-five thousand, sixty B) One million, thirty-five thousand, sixty
C) Thirteen thousand, five hundred six D) Thirteen thousand, five hundred sixty

Answer: A

- 31) 9,300,695
- A) Ninety-three thousand, six hundred ninety-five
B) Nine million, three thousand, six hundred ninety-five
C) Nine million, three hundred thousand, six hundred ninety-five
D) Nine million, thirty thousand, six hundred ninety-five

Answer: C

- 32) 22,000,674
- A) Two million, two thousand, six hundred seventy-four
B) Twenty-two hundred million, six hundred seventy-four
C) Twenty-two million, six thousand seventy-four
D) Twenty-two million, six hundred seventy-four

Answer: D

33) 64,568,009

- A) Sixty-million, five thousand sixty-eight hundred, nine
- C) Sixty-four million, five hundred sixty-eight thousand, nine

Answer: C

- B) Sixty-four million, five hundred thousand, sixty-eight hundred, nine
- D) Sixty million, forty-five thousand, sixty-eight hundred and nine

34) 235,060

- A) Two hundred thirty-five thousand, sixty
- C) Twenty-three thousand, five hundred six

Answer: A

- B) Two million, thirty-five thousand, sixty
- D) Twenty-three thousand, five hundred sixty

35) 4,200,091

- A) Four million, twenty thousand, ninety-one
- C) Four million, two hundred thousand, ninety-one

Answer: C

- B) Forty-two thousand, ninety-one
- D) Four million, two hundred ninety-one

36) 5168

- A) Five hundred thousand, one hundred sixty-eight
- C) Fifty-one thousand, sixty-eight

Answer: D

- B) Five million, one thousand, sixty-eight
- D) Five thousand, one hundred sixty-eight

37) 3072

- A) Thirty thousand, seventy-two
- C) Three hundred thousand, seventy-two

Answer: D

- B) Three million, seventy-two
- D) Three thousand, seventy-two

38) 24,807

- A) Two thousand, four hundred eighty-seven
- C) Two hundred forty-eight thousand, seven

Answer: D

- B) Two million, forty-eight thousand, seven
- D) Twenty-four thousand, eight hundred seven

39) 70,146

- A) Seven hundred one thousand, forty-six
- C) Seven thousand, one hundred forty-six

Answer: B

- B) Seventy thousand, one hundred forty-six
- D) Seven million, one thousand, 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.

- A) One hundred sixty-nine
- C) Nine hundred sixty-one

Answer: C

- B) Nine thousand sixty-one
- D) Six hundred nine

41) The average population of the suburbs around a certain large city is 72,018.

- A) Seven thousand, two hundred eighteen
- C) Seventy-two thousand, eighteen

Answer: C

- B) Seventy-two thousand, one hundred eight
- 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.
- A) One hundred twenty thousand, eighty-six hundred, fifteen
 - B) One hundred twenty-eight thousand, six hundred fifteen
 - C) Six hundred fifteen thousand, one hundred twenty-eight
 - D) One hundred twenty-eight million, six hundred fifteen

Answer: B

- 43) One of the statistics to come out of the election was that 45,826,498 people, or about half the population, cast votes.
- A) Forty-five billion, eight hundred twenty-six million, four hundred ninety-eight thousand
 - B) Forty-five million, eight hundred twenty-six thousand, four hundred ninety-eight
 - C) Forty-five million, eight hundred thousand, twenty-six hundred, four hundred ninety-eight
 - D) Forty-five thousand, eight hundred twenty-six hundred, four hundred, ninety-eight

Answer: B

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

Answer: B

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

Answer: B

- 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.
- 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

Answer: D

- 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.
- A) Eight hundred eighty-eight thousand, two hundred twenty-two billion, four hundred forty-four million, 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) Five hundred fifty-five million, eight hundred eighty-eight billion, two hundred twenty-two thousand, five hundred fifty-five
 - D) Four hundred forty-four million, two hundred twenty-two billion, eight hundred eighty-eight, five hundred fifty-five thousand

Answer: B

- 48) Repeating patterns in numbers like 400,040,004,000 held mystical significance for most of the members of the village.
- 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

Answer: C

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

Answer: B

Rewrite the following number using digits.

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

Answer: A

- 51) Thirty-two thousand, nine hundred five
- A) 3295
 - B) 320,905
 - C) 32,950
 - D) 32,905

Answer: D

- 52) Seven thousand, six
- A) 7060
 - B) 76,000
 - C) 7006
 - D) 7600

Answer: C

- 53) Forty-eight thousand, seventeen
- A) 48,170
 - B) 48,017
 - C) 47,180
 - D) 4817

Answer: B

- 54) Six hundred thirty-eight thousand, nine hundred ninety-seven
- A) 638,997
 - B) 638,997,000
 - C) 638,977
 - D) 638,000

Answer: A

- 55) Two hundred six thousand, one hundred seven
- A) 206,107
 - B) 260,170
 - C) 2617
 - D) 207,106

Answer: A

- 56) One hundred million, six thousand
- A) 1006
 - B) 100,006,000
 - C) 1,600,000
 - D) 106,000,000

Answer: B

- 57) Ten million, three hundred fifty-four thousand, two hundred three
- A) 10,354,203
 - B) 1,354,230
 - C) 1,354,203
 - D) 135,423

Answer: A

- 58) Three billion
- A) 3,000,000,000,000
 - B) 6,000,000,000
 - C) 3,000,000
 - D) 3,000,000,000

Answer: D

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.

- A) 4983 B) 490,803 C) 49,803 D) 49,830

Answer: C

60) A certain exotic sport scar costs three hundred twelve thousand, eight hundred ninety-one dollars.

- A) 312,891 B) 3,208,910 C) 31,281 D) 312,891,000

Answer: A

61) The population of BigTown is one million, three hundred thirty-five thousand, five hundred six.

- A) 13,035,560 B) 1,035,506 C) 1,335,506 D) 133,506

Answer: C

62) Don figured out that he had lived two billion, five hundred eighty-two million seconds.

- A) 2,582,000,000,000 B) 2,000,582,000 C) 2,582,000 D) 2,582,000,000

Answer: D

63) The volume of water in the lake is seven billion, eight hundred twenty-one million, ninety-four thousand, six hundred thirteen gallons.

- A) 7,821,094,613 B) 782,194,613 C) 7,000,821,094,613 D) 7,821,940,613

Answer: A

64) The distance between two stars is four trillion, three hundred seventeen billion, nine hundred eighty-eight million miles.

- A) 4,317,988,000 B) 4,317,988,000,000,000
C) 4,317,988 D) 4,317,988,000,000

Answer: D

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

65) $44 \square 46$

- A) < B) >

Answer: A

66) $42 \square 40$

- A) < B) >

Answer: B

67) $0 \square 41$

- A) < B) >

Answer: A

68) $21 \square 0$

- A) < B) >

Answer: B

69) $60 \square 171$

- A) < B) >

Answer: A

70) $268 \square 41$

A) $>$

B) $<$

Answer: A

71) $195 \square 193$

A) $<$

B) $>$

Answer: B

72) $783 \square 791$

A) $<$

B) $>$

Answer: A

73) $1535 \square 1537$

A) $>$

B) $<$

Answer: B

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

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) $155 < 165$

B) $80 < 165$

C) $80 > 165$

D) $80 < 155$

Answer: B

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) $155 < 350$

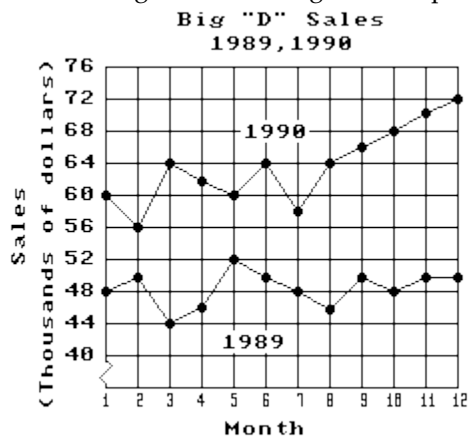
B) $3 > 22$

C) $350 > 155$

D) $22 > 3$

Answer: D

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



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

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

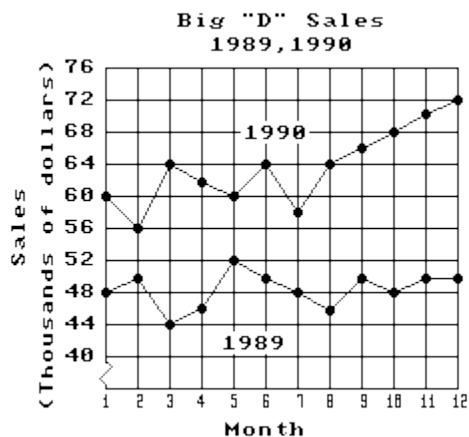
B) $\$46,000 < \$64,000$

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

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

Answer: C

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



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

A) $\$70,000 > \$66,000$

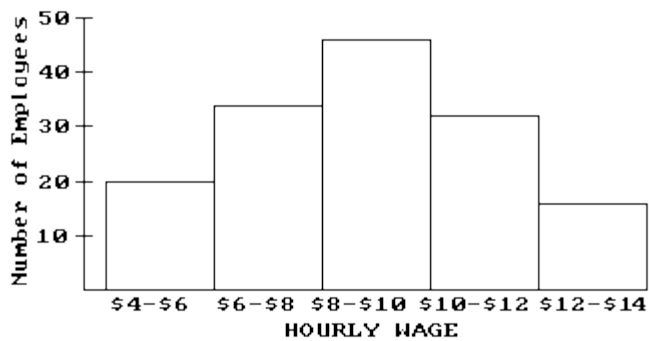
B) $\$72,000 > \$60,000$

C) $\$50,000 > \$48,000$

D) $\$48,000 < \$60,000$

Answer: B

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



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

A) $25 < 40$

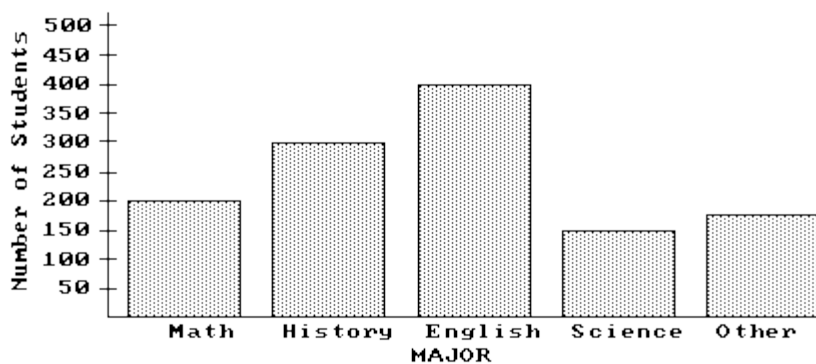
B) $20 < 34$

C) $30 > 20$

D) $20 < 45$

Answer: D

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



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

A) $200 > 150$

B) $300 < 400$

C) $400 > 200$

D) $300 > 200$

Answer: C

Add.

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

A) 109

B) 107

C) 108

D) 98

Answer: C

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

A) 52

B) 51

C) 53

D) 42

Answer: A

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

A) 1324
Answer: C

B) 1224

C) 785

D) 1385

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

A) 10,617
Answer: C

B) 10,627

C) 11,627

D) 10,527

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

A) 691
Answer: D

B) 680

C) 1437

D) 690

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

A) 9092
Answer: D

B) 16,545

C) 9002

D) 9102

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

A) 32,089
Answer: B

B) 32,079

C) 39,108

D) 31,979

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

A) 67,330
Answer: B

B) 67,130

C) 108,215

D) 66,130

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

A) 125,589
Answer: A

B) 135,589

C) 124,489

D) 124,589

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

A) 683,998
Answer: B

B) 137,662

C) 137,652

D) 157,762

- 90) $425 + 432$
 A) 677 B) 758 C) 857 D) 965
 Answer: C
- 91) $3113 + 1424$
 A) 4735 B) 4537 C) 4555 D) 4458
 Answer: B
- 92) $12,231 + 23,132$
 A) 35,543 B) 44,363 C) 35,544 D) 35,363
 Answer: D
- 93) $114 + 495$
 A) 609 B) 499 C) 509 D) 599
 Answer: A
- 94) $147 + 3015$
 A) 3062 B) 2162 C) 3162 D) 3172
 Answer: C
- 95) $406 + 59,801$
 A) 59,207 B) 63,861 C) 60,207 D) 61,637
 Answer: C
- 96) $5241 + 9200$
 A) 13,441 B) 14,431 C) 14,341 D) 14,441
 Answer: D
- 97) $90,802 + 30,270$
 A) 116,073 B) 111,072 C) 121,072 D) 131,072
 Answer: C
- 98)
$$\begin{array}{r} 3 \\ 2 \\ 2 \\ 5 \\ + 2 \\ \hline \end{array}$$

 A) 17 B) 14 C) 15 D) 12
 Answer: B
- 99)
$$\begin{array}{r} 35 \\ 69 \\ + 81 \\ \hline \end{array}$$

 A) 175 B) 186 C) 196 D) 185
 Answer: D

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

A) 236

B) 226

C) 262

D) 249

Answer: B

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

A) 1852

B) 1604

C) 1474

D) 1374

Answer: C

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

A) 16,932

B) 15,953

C) 16,743

D) 16,953

Answer: D

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

A) 128,022

B) 129,122

C) 129,022

D) 130,122

Answer: C

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

A) 2541

B) 2451

C) 2551

D) 2441

Answer: D

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

A) 14,153

B) 13,253

C) 13,163

D) 14,263

Answer: D

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

A) 11,072

B) 11,162

C) 12,062

D) 12,172

Answer: D

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

A) 49,647,013

B) 45,094,626

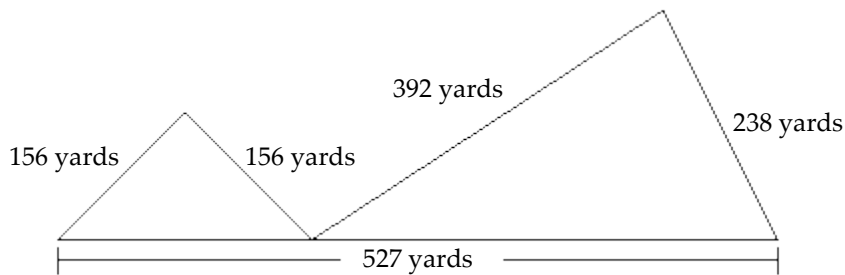
C) 45,236,756

D) 45,106,756

Answer: D

Find the perimeter of the figure.

108)



A) 1469 yards

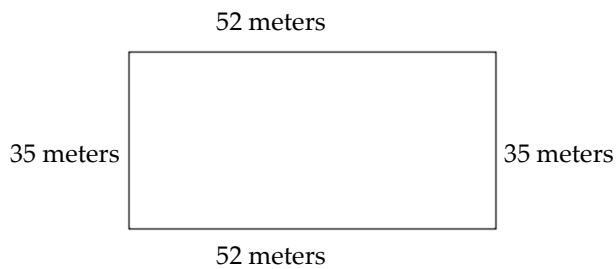
B) 1313 yards

C) 1231 yards

D) 1233 yards

Answer: A

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



A) 174 m

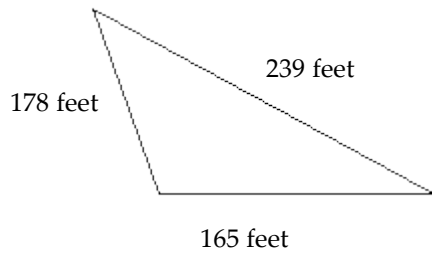
B) 1820 m

C) 87 m

D) 139 m

Answer: A

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



A) 39,852 ft

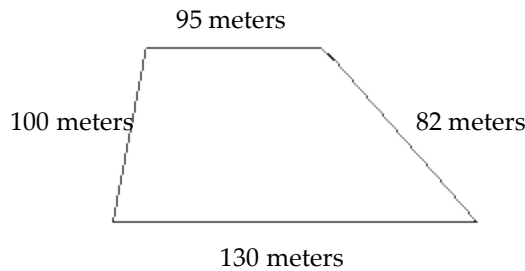
B) 417 ft

C) 582 ft

D) 572 ft

Answer: C

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



A) 312 m

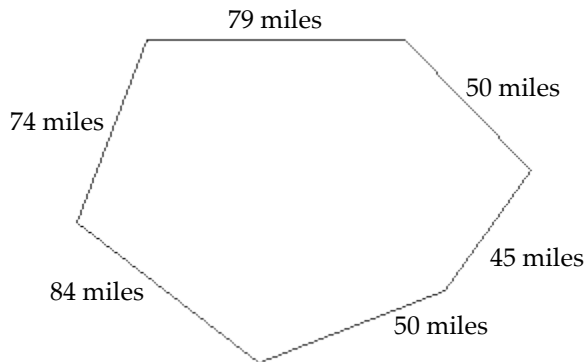
B) 407 m

C) 364 m

D) 354 m

Answer: B

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?



A) 382 mi

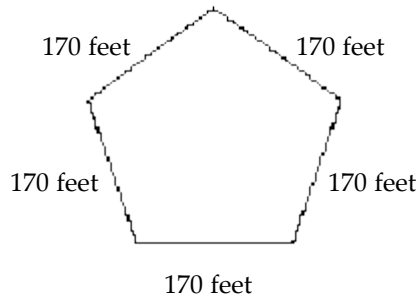
B) 308 mi

C) 461 mi

D) 402 mi

Answer: A

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



A) 28,900 ft

B) 865 ft

C) 1020 ft

D) 850 ft

Answer: D

Subtract.

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

A) 104

B) 54

C) 44

D) 74

Answer: B

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

A) 24

B) 16

C) 92

D) 34

Answer: A

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

A) 204

B) 304

C) 298

D) 810

Answer: B

$$\begin{array}{r} 117) \quad 888 \\ - 55 \\ \hline \end{array}$$

A) 733

B) 833

C) 823

D) 943

Answer: B

$$\begin{array}{r} 118) \quad 7867 \\ - 332 \\ \hline \end{array}$$

A) 7535

B) 535

C) 7471

D) 7531

Answer: A

$$\begin{array}{r} 119) \quad 6788 \\ - 2413 \\ \hline \end{array}$$

A) 4369

B) 4375

C) 6375

D) 4349

Answer: B

$$\begin{array}{r} 120) \quad 5857 \\ - 5212 \\ \hline \end{array}$$

A) 645
Answer: A

B) 621

C) 641

D) 5645

$$\begin{array}{r} 121) \quad 66,876 \\ - 21,212 \\ \hline \end{array}$$

A) 46,664
Answer: C

B) 45,640

C) 45,664

D) 45,660

$$\begin{array}{r} 122) \quad 68,986 \\ - 4333 \\ \hline \end{array}$$

A) 64,587
Answer: B

B) 64,653

C) 68,653

D) 64,647

$$\begin{array}{r} 123) \quad 72 \\ - 26 \\ \hline \end{array}$$

A) 66
Answer: C

B) 98

C) 46

D) 42

$$\begin{array}{r} 124) \quad 65 \\ - 55 \\ \hline \end{array}$$

A) 10
Answer: A

B) 120

C) 20

D) 0

$$\begin{array}{r} 125) \quad 527 \\ - 185 \\ \hline \end{array}$$

A) 342
Answer: A

B) 242

C) 712

D) 332

$$\begin{array}{r} 126) \quad 841 \\ - 59 \\ \hline \end{array}$$

A) 780
Answer: B

B) 782

C) 682

D) 900

$$\begin{array}{r} 127) \quad 3891 \\ - 628 \\ \hline \end{array}$$

A) 3261
Answer: D

B) 3221

C) 263

D) 3263

$$\begin{array}{r} 128) \quad 6729 \\ - 5195 \\ \hline \end{array}$$

A) 1524
Answer: D

B) 6534

C) 1484

D) 1534

$$\begin{array}{r} 129) \quad 6167 \\ - 1724 \\ \hline \end{array}$$

A) 4443
Answer: A

B) 4395

C) 5443

D) 4435

$$\begin{array}{r} 130) \quad 81,258 \\ - 49,654 \\ \hline \end{array}$$

A) 40,604
Answer: B

B) 31,604

C) 31,496

D) 31,596

$$\begin{array}{r} 131) \quad 54,435 \\ - 6965 \\ \hline \end{array}$$

A) 47,400
Answer: D

B) 53,470

C) 47,460

D) 47,470

$$\begin{array}{r} 132) \quad 61 - 36 \\ \hline \end{array}$$

A) 35
Answer: B

B) 25

C) 20

D) 45

$$\begin{array}{r} 133) \quad 650 - 101 \\ \hline \end{array}$$

A) 533
Answer: D

B) 559

C) 649

D) 549

$$\begin{array}{r} 134) \quad 138 - 31 \\ \hline \end{array}$$

A) 119
Answer: D

B) 97

C) 207

D) 107

$$\begin{array}{r} 135) \quad 6476 - 1310 \\ \hline \end{array}$$

A) 5256
Answer: D

B) 5666

C) 5126

D) 5166

$$\begin{array}{r} 136) \quad 95,007 - 15,656 \\ \hline \end{array}$$

A) 80,751
Answer: C

B) 79,251

C) 79,351

D) 79,751

$$\begin{array}{r} 137) \quad 73,027 - 8442 \\ \hline \end{array}$$

A) 64,285
Answer: D

B) 68,585

C) 72,405

D) 64,585

138) $91,084 - 6861$

A) 84,523

B) 92,043

C) 88,223

D) 84,223

Answer: D

139) $4611 - 34$

A) 4645

B) 4527

C) 4577

D) 4575

Answer: C

140) $73,823 - 63$

A) 73,410

B) 73,260

C) 73,886

D) 73,760

Answer: D

141) $79,214 - 217$

A) 79,431

B) 78,497

C) 78,647

D) 78,997

Answer: D

Multiply.

142)

88

$\times 6$

A) 488

B) 494

C) 528

D) 628

Answer: C

143)

908

$\times 5$

A) 4540

B) 4640

C) 4440

D) 4550

Answer: A

144)

2596

$\times 3$

A) 7788

B) 7798

C) 7888

D) 7688

Answer: A

145)

48,148

$\times 9$

A) 433,322

B) 433,332

C) 433,432

D) 433,262

Answer: B

146) $8 \cdot 703$

A) 5840

B) 80

C) 584

D) 5624

Answer: D

147) $7 \cdot 707$
 A) 4942 B) 4949 C) 4849 D) 4939
 Answer: B

148) $2(8494)$
 A) 16,888 B) 16,988 C) 17,088 D) 16,998
 Answer: B

149)

$$\begin{array}{r} 28 \\ \times 78 \\ \hline \end{array}$$

 A) 2284 B) 2184 C) 2194 D) 2174
 Answer: B

150) $(33)(22)$
 A) 826 B) 736 C) 726 D) 716
 Answer: C

151) $(86)(329)$
 A) 28,394 B) 28,294 C) 28,284 D) 28,304
 Answer: B

152) $(438)(86)$
 A) 37,768 B) 37,678 C) 37,668 D) 37,658
 Answer: C

153)

$$\begin{array}{r} 119 \\ \times 69 \\ \hline \end{array}$$

 A) 8211 B) 8201 C) 8221 D) 8311
 Answer: A

154)

$$\begin{array}{r} 664 \\ \times 327 \\ \hline \end{array}$$

 A) 217,228 B) 217,128 C) 217,138 D) 217,118
 Answer: B

155)

$$\begin{array}{r} 4118 \\ \times 499 \\ \hline \end{array}$$

 A) 2,053,882 B) 2,054,882 C) 2,054,982 D) 2,064,882
 Answer: B

156)

$$\begin{array}{r} 4795 \\ \times 7486 \\ \hline \end{array}$$

- A) 35,895,470 B) 35,895,370 C) 35,905,370 D) 35,894,370
Answer: B

157)

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

- A) 110 B) 90 C) 80 D) 100
Answer: D

158)

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

- A) 6400 B) 4400 C) 5400 D) 5300
Answer: C

159)

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

- A) 2420 B) 13,420 C) 3420 D) 4420
Answer: C

160)

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

- A) 26,020 B) 35,020 C) 24,020 D) 25,020
Answer: D

161)

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

- A) 601,460 B) 600,460 C) 610,460 D) 599,460
Answer: B

162)

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

- A) 60,000 B) 70,000 C) 61,000 D) 59,000
Answer: A

163)

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

A) 164,999,000

B) 164,999,501

C) 165,000,000

D) 165,001,000

Answer: C

164) $120 \cdot 80$

A) 9596

B) 9610

C) 9590

D) 9600

Answer: D

165) $4300 \cdot 400$

A) 1,719,501

B) 1,719,000

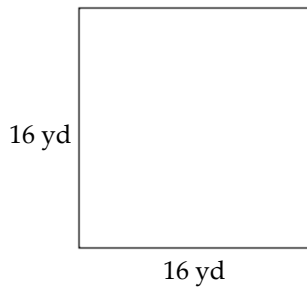
C) 1,720,000

D) 1,721,000

Answer: C

Find the area of the region.

166)



A) 64 sq yd

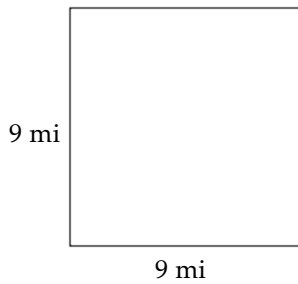
B) 251 sq yd

C) 512 sq yd

D) 256 sq yd

Answer: D

167)



A) 77 sq mi

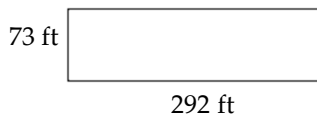
B) 36 sq mi

C) 84 sq mi

D) 81 sq mi

Answer: D

168)



A) 21,316 sq ft

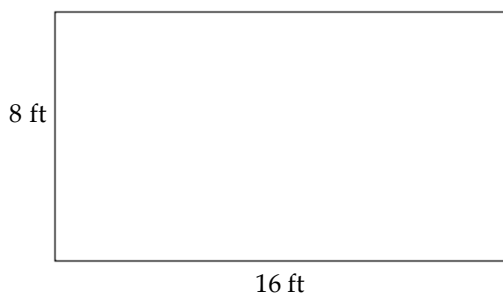
B) 21,326 sq ft

C) 730 sq ft

D) 21,306 sq ft

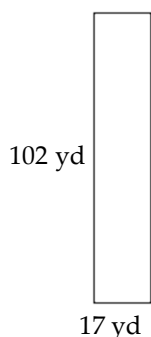
Answer: A

- 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.



- A) 64 sq ft B) 128 sq ft C) 256 sq ft D) 192 sq ft
- Answer: B

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



- A) 1734 sq yd B) 1724 sq yd C) 119 sq yd D) 1445 sq yd
- Answer: A

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

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

- A) 4 R7 B) 6 C) 5 D) 4 R6
- Answer: C

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

- A) Not defined B) 2 C) 1 D) 0
- Answer: A

173) $62 \overline{)0}$

- A) 1 B) 0 C) Not defined D) 62
- Answer: B

174) $572 \div 2$

- A) 286 B) 285 R 1 C) 285 D) 286 R 1
- Answer: A

- 175) $4485 \div 5$
 A) 897 R 1 B) 899 R 4 C) 897 D) 899
 Answer: C
- 176) $5 \overline{)7055}$
 A) 1409 B) 1411 C) 1411 R 4 D) 1409 R 1
 Answer: B
- 177) $6 \overline{)285}$
 A) 47 R5 B) 47 C) 50 D) 47 R3
 Answer: D
- 178) $8 \overline{)195}$
 A) 27 B) 24 R3 C) 24 D) 24 R7
 Answer: B
- 179) $2746 \div 6$
 A) 461 B) 457 C) 457 R4 D) 457 R5
 Answer: C
- 180) $4 \overline{)3382}$
 A) 844 R6 B) 845 R1 C) 845 R2 D) 845
 Answer: C

Divide.

- 181) $1,830,000 \div 1000$
 A) 183,000 B) 1830 C) 1.83e+09 D) 183
 Answer: B
- 182) $23 \overline{)874}$
 A) 38 R 15 B) 39 R 5 C) 39 R 13 D) 38
 Answer: D
- 183) $903 \div 35$
 A) 25 R 28 B) 25 C) 24 R 26 D) 23 R 7
 Answer: A
- 184) $2422 \div 14$
 A) 174 B) 174 R 4 C) 173 R 5 D) 173
 Answer: D
- 185) $40 \overline{)7414}$
 A) 188 R 5 B) 188 R 32 C) 185 R 14 D) 185
 Answer: C

- 186) $51 \overline{)83,946}$
 A) 1646 B) 1656 R 41 C) 1651 R 33 D) 1636
 Answer: A
- 187) $33 \overline{)8343}$
 A) 27 B) 252 C) 252 R11 D) 252 R27
 Answer: D
- 188) $6191 \div 149$
 A) 41 B) 36 R 82 C) 44 R 49 D) 41 R 82
 Answer: D
- 189) $460 \overline{)66,667}$
 A) 144 B) 144 R317 C) 427 D) 144 R427
 Answer: D
- 190) $546 \overline{)3,527,706}$
 A) 6451 R 68 B) 6461 R 68 C) 6451 D) 6461
 Answer: D

Round as indicated.

- 191) 876 to the nearest ten
 A) 880 B) 870 C) 980 D) 890
 Answer: A
- 192) 3445 to the nearest ten
 A) 3550 B) 3460 C) 3440 D) 3450
 Answer: D
- 193) 9865 to the nearest ten
 A) 9970 B) 9860 C) 9870 D) 9880
 Answer: C
- 194) 55,838 to the nearest ten
 A) 55,840 B) 55,940 C) 55,850 D) 55,830
 Answer: A
- 195) 548,039 to the nearest ten
 A) 548,140 B) 548,040 C) 548,050 D) 548,020
 Answer: B
- 196) 741 to the nearest hundred
 A) 700 B) 800 C) 710 D) 600
 Answer: A
- 197) 369 to the nearest hundred
 A) 300 B) 500 C) 400 D) 390
 Answer: C

198) 6340 to the nearest hundred

A) 6300

B) 6310

C) 6400

D) 6200

Answer: A

199) 6171 to the nearest hundred

A) 6300

B) 6100

C) 6200

D) 6190

Answer: C

200) 73,514 to the nearest hundred

A) 73,500

B) 73,400

C) 73,510

D) 73,600

Answer: A

Round to the nearest thousand.

201) 7334

A) 7330

B) 7000

C) 8000

D) 7300

Answer: B

202) 7546

A) 8000

B) 7500

C) 9000

D) 7550

Answer: A

203) 11,254

A) 11,000

B) 21,000

C) 12,000

D) 11,100

Answer: A

204) 75,003

A) 76,000

B) 75,010

C) 75,100

D) 75,000

Answer: D

205) 213,469

A) 212,000

B) 213,500

C) 210,000

D) 213,000

Answer: D

206) 2,543,441

A) 2,544,000

B) 2,543,400

C) 2,540,000

D) 2,543,000

Answer: D

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

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

A) 160

B) 150

C) 158

D) 200

Answer: B

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

A) 270

B) 300

C) 259

D) 260

Answer: A

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

A) 40

B) 43

C) 90

D) 50

Answer: D

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

A) 4072

B) 4100

C) 4080

D) 4070

Answer: C

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

A) 640

B) 647

C) 650

D) 600

Answer: A

Estimate the sum or difference by first rounding as indicated.

212) Estimate by first rounding to the nearest hundred.

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

A) 8618

B) 8700

C) 9000

D) 8600

Answer: B

213) Estimate by first rounding to the nearest hundred.

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

A) 3700

B) 3780

C) 3800

D) 3778

Answer: A

214) Estimate by first rounding to the nearest hundred.

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

A) 100

B) 1600

C) 200

D) 145

Answer: C

215) Estimate by first rounding to the nearest hundred.

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

A) 7600

B) 7700

C) 8000

D) 7623

Answer: B

216) Estimate by first rounding to the nearest thousand.

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

A) 28,000

B) 27,500

C) 27,000

D) 27,400

Answer: A

217) Estimate by first rounding to the nearest thousand.

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

A) 16,200

B) 16,100

C) 15,000

D) 16,000

Answer: C

218) Estimate by first rounding to the nearest thousand.

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

A) 32,000

B) 32,800

C) 32,700

D) 33,000

Answer: A

219) Estimate by first rounding to the nearest thousand.

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

A) 55,200

B) 56,000

C) 55,100

D) 55,000

Answer: B

Estimate the answer by rounding as indicated.

220) Estimate by first rounding to the nearest ten.

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

A) 80

B) 1460

C) 1200

D) 1464

Answer: C

221) Estimate by first rounding to the nearest hundred.

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

A) 717,800

B) 1700

C) 700,000

D) 717,840

Answer: C

222) Estimate by first rounding to the nearest ten.

$$279 \div 44$$

A) 8

B) 7

C) 19

D) 10

Answer: B

223) Estimate by first rounding to the nearest ten.

$$663 \div 26$$

A) 21

B) 35

C) 29

D) 22

Answer: D

224) Estimate by first rounding to the nearest hundred.

$$8502 \div 524$$

A) 15

B) 18

C) 21

D) 17

Answer: D

225) Estimate by first rounding to the nearest hundred.

$$23,170 \div 753$$

A) 18

B) 32

C) 58

D) 29

Answer: D

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).

- A) \$2000 B) \$2100 C) \$1100 D) \$1200

Answer: A

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

- A) Yes B) No

Answer: A

228) Matt has a budget of \$1379. Can he afford to buy the computer for \$899 with options (b), (e), and (g)?

- A) No B) Yes

Answer: B

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.

- A) 500 mi B) 1000 mi C) 2000 mi D) 400 mi

Answer: A

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.

- A) \$70,000 B) \$63,000 C) \$54,000 D) \$60,000

Answer: B

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.

- A) 1200 mi B) 900 mi C) 1500 mi D) 1750 mi

Answer: A

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.

A) Estimate: 140,000 bicycles; exact: 7060 bicycles

B) Estimate: 5950 bicycles; exact: 6001 bicycles

C) Estimate: 5950 bicycles; exact: 7060 bicycles

D) Estimate: 8000 bicycles; exact: 6001 bicycles

Answer: D

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.

A) Estimate: \$2700; exact: \$2676

B) Estimate: \$2400; exact: \$2676

C) Estimate: \$2400; exact: \$2700

D) Estimate: \$2700; exact: \$2700

Answer: B

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.

A) Estimate: 840,000,000 sq ft; exact: 919,987,200 sq ft

B) Estimate: 840,000,000 sq ft; exact: 919,974,000 sq ft

C) Estimate: 900,000,000 sq ft; exact: 919,987,200 sq ft

D) Estimate: 900,000,000 sq ft; exact: 919,974,000 sq ft

Answer: C

Solve by trial.

235) $x + 0 = 9$

A) 0

B) 8

C) 11

D) 9

Answer: D

236) $x + 3 = 14$

A) 15

B) 13

C) 10

D) 11

Answer: D

237) $x - 4 = 13$

A) 17

B) 19

C) 7

D) 22

Answer: A

238) $y \cdot 3 = 0$

A) 4

B) 3

C) 2

D) 0

Answer: D

239) $y \cdot 2 = 12$

A) 0

B) 7

C) 6

D) 5

Answer: C

240) $54 \div n = 9$

A) 6

B) 4

C) 8

D) 7

Answer: A

241) $72 \div n = 6$

A) 120

B) 12

C) 13

D) 10

Answer: B

Solve.

242) $x = 3330 + 4208$

A) 7538

B) 8538

C) 7438

D) 7501

Answer: A

243) $x = 40,283 + 11,926$

A) 51,209

B) 52,209

C) 52,266

D) 52,109

Answer: B

244) $x = 784 - 362$

A) 432

B) 412

C) 422

D) 1146

Answer: C

245) $7776 - 1772 = x$

A) 9548

B) 6104

C) 6004

D) 5904

Answer: C

246) $y = 3 \cdot 8$

A) 34

B) 22

C) 240

D) 24

Answer: D

247) $z = 49 \cdot 25$

A) 122,500

B) 1225

C) 74

D) 12,250

Answer: B

248) $162 \div 2 = q$

A) 91

B) 160

C) 324

D) 81

Answer: D

249) $x = 144 \div 16$

A) 90

B) 2304

C) 7

D) 9

Answer: D

250) $x + 3 = 28$

A) 31

B) 25

C) 84

D) 15

Answer: B

251) $5 + y = 23$

A) 16

B) 115

C) 28

D) 18

Answer: D

252) $25 = 4 + x$

A) 11

B) 27

C) 31

D) 21

Answer: D

253) $x + 141 = 681$

A) 550

B) 540

C) 96,021

D) 822

Answer: B

254) $395 + y = 841$ A) 1236 Answer: B	B) 446	C) 332,195	D) 444
255) $819 = 202 + x$ A) 623 Answer: D	B) 607	C) 627	D) 617
256) $8 = 8 + m$ A) 1 Answer: C	B) 16	C) 0	D) 4
257) $44 + x = 71$ A) 3124 Answer: C	B) 98	C) 27	D) 115
258) $x + 36 = 124$ A) 4464 Answer: C	B) 160	C) 88	D) 212
259) $3458 + y = 4688$ A) 5918 Answer: B	B) 1230	C) 1376	D) 1409
260) $5358 = 541 + t$ A) 3541 Answer: B	B) 4817	C) 5899	D) 4082
261) $4 \cdot x = 32$ A) 7 Answer: C	B) 32	C) 8	D) 128
262) $3 \cdot y = 90$ A) 31 Answer: B	B) 30	C) 33	D) 32
263) $144 = m \cdot 8$ A) 1152 Answer: C	B) 144	C) 18	D) 8
264) $952 = 4 \cdot w$ A) 948 Answer: B	B) 238	C) 3808	D) 4
265) $7 \cdot z = 3066$ A) 438 Answer: A	B) 434	C) 436	D) 440

266) $752 = n \cdot 16$

A) 12,032

B) 47

C) 752

D) 736

Answer: B

267) $20 \cdot x = 1760$

A) 83

B) 87

C) 85

D) 88

Answer: D

268) $96 \cdot m = 19,008$

A) 18,911

B) 199

C) 198

D) 18,912

Answer: C

Solve the problem.

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

September \$3902

October \$3648

November \$3976

December \$2924

What were the total sales over this period?

A) \$14,560

B) \$14,550

C) \$14,450

D) \$14,460

Answer: C

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

September \$3087

October \$2891

November \$2377

December \$4224

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

A) \$6601

B) \$6501

C) \$1747

D) \$1847

Answer: D

271) Pete is driving across country from Boston to Seattle. He keeps a record of the distance that he drives each day.

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) 499 miles

B) 832 miles

C) 222 miles

D) 166 miles

Answer: D

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) 978 miles

D) 988 miles

Answer: D

- 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) 1042 feet B) 1043 feet C) 1435 feet D) 1434 feet
 Answer: B
- 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) \$740 B) \$730 C) \$492 D) \$1238
 Answer: A
- 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) \$52,996 C) \$80,280 D) \$52,986
 Answer: B
- 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) \$14,161 B) \$15,635 C) \$15,735 D) \$14,261
 Answer: D
- 277) The dimensions of a rectangular yard are 26 feet by 102 feet. What is its perimeter?
 A) 256 feet B) 154 feet C) 128 feet D) 2652 feet
 Answer: A
- 278) Mark's typing speed is 79 words per minute. How many words can he type in 35 minutes?
 A) 2665 words B) 114 words C) 2775 words D) 2765 words
 Answer: D
- 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) \$200 B) \$5226 C) \$20 D) \$5174
 Answer: A
- 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; 1 chocolates left over B) 30 boxes; 1 chocolates left over
 C) 30 boxes; 2 chocolates left over D) 31 boxes; no chocolates left over
 Answer: A
- 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) 600 matches per carton D) 125 matches per carton
 Answer: C
- 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?
 A) 5 truckloads B) 6 truckloads C) 7 truckloads D) 4 truckloads
 Answer: B

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?

- A) 5 miles; 5 inches B) 80 miles; 5 inches C) 80 miles; 80 inches D) 5 miles; 80 inches

Answer: B

284) A spreadsheet contains 550 entries in a rectangular array which has 25 rows. How many entries are in each row?

- A) 13,750 entries B) 525 entries C) 22 entries D) 32 entries

Answer: C

285) Danny buys 5 books at \$32 each and pays for them with 10-dollar bills. How many \$10 bills did it take?

- A) 4 10-dollar bills B) 160 10-dollar bills C) 150 10-dollar bills D) 16 10-dollar bills

Answer: D

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?

- A) \$7596 B) \$7696 C) \$7746 D) \$7846

Answer: D

287) A community garden contains 30 rectangular plots each measuring 6 yd by 9 yd. What is the total area available for gardening?

- A) 900 sq yd B) 1650 sq yd C) 1620 sq yd D) 54 sq yd

Answer: C

Write exponential notation.

288) $4 \cdot 4$

- A) 4^3 B) $2 \cdot 4$ C) 4^2 D) 2^4

Answer: C

289) $8 \cdot 8 \cdot 8$

- A) 8^3 B) 8^1 C) 3^8 D) $3 \cdot 8$

Answer: A

290) $7 \cdot 7 \cdot 7 \cdot 7$

- A) 7^2 B) 7^4 C) 28 D) 4^7

Answer: B

291) $4 \cdot 4 \cdot 4 \cdot 4 \cdot 4$

- A) 5^4 B) 4^5 C) $5 \cdot 4$ D) 4^0

Answer: B

292) $17 \cdot 17 \cdot 17 \cdot 17$

- A) 17^4 B) 4^{15} C) 17^1 D) $4 \cdot 17$

Answer: A

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

- A) 13^5 B) $5 \cdot 5^{15}$ C) $5 \cdot 13$ D) 5^{15}

Answer: A

Evaluate.

294) 10^2

A) 100

B) 121

C) 20

D) 1024

Answer: A

295) 7^3

A) 216

B) 21

C) 343

D) 2187

Answer: C

296) 9^4

A) 6561

B) 729

C) 36

D) 262,144

Answer: A

297) 10^5

A) 100,000

B) 1,000,000

C) 50

D) 9,765,625

Answer: A

Simplify.

298) $240 \div 8 - 3$

A) 235

B) 48

C) 229

D) 27

Answer: D

299) $7^2 + 8^2$

A) 113

B) 30

C) 225

D) 60

Answer: A

300) $13 + 29 \cdot 25$

A) 1050

B) 67

C) 402

D) 738

Answer: D

301) $5 \cdot 5 - 3$

A) 22

B) 10

C) 75

D) 28

Answer: A

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

A) 2560

B) 64

C) 48

D) 288

Answer: C

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

A) 672

B) 78

C) 63

D) 150

Answer: C

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

A) 8

B) 214

C) 27

D) 108

Answer: A

- 305) $10^2 - 4 \cdot 7$
 A) 672 B) 72 C) 252 D) 420
 Answer: B
- 306) $10^2 + 4^2 \div 2^2$
 A) 120 B) 29 C) 104 D) 49
 Answer: C
- 307) $2^{15} \div 2^8 \cdot 2^3 \div 2^4$
 A) 64 B) 2048 C) 1 D) 256
 Answer: A
- 308) $(3 + 5)^2$
 A) 34 B) 28 C) 14 D) 64
 Answer: D
- 309) $56 - (25 - 7)$
 A) 18 B) 38 C) 31 D) 24
 Answer: B
- 310) $144 \div (12 \div 4)$
 A) 12 B) 141 C) 3 D) 48
 Answer: D
- 311) $(14 - 12)^2 + (5 + 3)^2$
 A) 86 B) 100 C) 38 D) 68
 Answer: D
- 312) $9 \cdot 9 + 8(6 + 2) + 2$
 A) 1226 B) 133 C) 161 D) 147
 Answer: D
- 313) $520 \div 13 - (5 + 3)$
 A) 38 B) 35 C) 104 D) 32
 Answer: D
- 314) $3 \cdot (3 + 4)^2 - 3 \cdot (5 - 3)^2$
 A) 157 B) 405 C) 576 D) 135
 Answer: D
- 315) $11^2 + 9 \cdot 10 - (9 + 6 \cdot 6)$
 A) 166 B) 121 C) 238 D) 1255
 Answer: A
- 316) $6 \cdot 12 - (14 - 11) \div 3 - (8 - 7)$
 A) 22 B) 56 C) 70 D) 15
 Answer: C

317) $360 - 3^4 \cdot 24 \div (4 \cdot 3 - 2 \cdot 2)$

A) 837

B) 194

C) 117

D) 554

Answer: C

Find the average.

318) Ages of patients (in years) in a clinic: 19, 5, 28, 19

(Round to the nearest whole number)

A) 18 years

B) 5 years

C) 17 years

D) 19 years

Answer: A

319) Scores on a math test: 77 42 77 97 42

A) 67

B) 42

C) 97

D) 66

Answer: A

320) Monthly checking account fees: \$16, \$9, \$4, \$10, \$8, \$3, \$6

A) \$6

B) \$10

C) \$8

D) \$7

Answer: C

Simplify.

321) $8 \times 3 + \{12 \div [8 - (3 + 2)]\}$

A) 30

B) 27

C) 28

D) 29

Answer: C

322) $81 \div 3 + \{5 \times [18 - (6 \times 2)]\}$

A) 52

B) 60

C) 47

D) 57

Answer: D

323) $[20 - (4 + 6) \div 2] - [1 + 12 \div 3]$

A) 17

B) 7

C) 10

D) 5

Answer: C

324) $(70 - 19) \times [(80 + 10 \div 5) - (6 \cdot 6 - 5 \cdot 5)]$

A) 3721

B) 3585

C) 3678

D) 3621

Answer: D

325) $4 \times (300 - 20 \div 5) - [3 \cdot 26 - (8 - 2 \cdot 3)]$

A) 392

B) 2884

C) 1108

D) 1058

Answer: C

326) $\{[57 - 2 \cdot 2] - [78 \div (1 + 2)]\} \cdot 5$

A) 190

B) 165

C) 125

D) 135

Answer: D

327) $8(9 - 3 \cdot 2)^2 \div (2 \cdot 4)$

A) 144

B) 3

C) 9

D) 12

Answer: C

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.

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

- 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.

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

- 330) Explain in your own words the commutative law of addition.

Answer: Numbers can be added in any order and have the same sum.

- 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.

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

- 332) Is division commutative? Explain your answer.

Answer: No. $a \div b$ does not always equal $b \div a$.

- 333) The expression $8 + (4 \div 2)$ contains parentheses. Are they necessary? Explain.

Answer: 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) The expression $(3 + 5) \div 2$ contains parentheses. Are they necessary? Explain.

Answer: Yes. Without the parentheses 5 would be divided by 2, then that answer would be added to 3.

$$(3 + 5) \div 2 = 4 \text{ and } 3 + 5 \div 2 = 5.5.$$

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

A) Yes

B) No

Answer: A

- 336) 42; 14

A) Yes

B) No

Answer: A

- 337) 12; 72

A) Yes

B) No

Answer: B

338) 55; 16

A) Yes

B) No

Answer: B

339) 780; 40

A) Yes

B) No

Answer: B

Find all the factors of the number.

340) 30

A) 1, 5, 6, 30

B) 1, 2, 3, 5, 6, 10, 20, 30

C) 1, 2, 3, 5, 6, 10, 15, 30

D) 5, 6, 10, 30

Answer: C

341) 28

A) 1, 2, 7, 14, 28

B) 2, 7, 14, 28

C) 1, 2, 4, 7, 14, 28

D) 1, 2, 4, 7, 8, 14, 28

Answer: C

342) 36

A) 2, 4, 6, 12, 18, 36

B) 1, 2, 3, 4, 5, 6, 9, 10, 12, 18, 36

C) 1, 2, 4, 6, 12, 18, 36

D) 1, 2, 3, 4, 6, 9, 12, 18, 36

Answer: D

343) 45

A) 1, 3, 5, 9, 15, 30, 45

B) 1, 3, 5, 15, 45

C) 1, 3, 5, 9, 15, 45

D) 1, 2, 3, 5, 9, 15, 30, 45

Answer: C

344) 56

A) 1, 2, 4, 7, 8, 14, 28, 56

B) 1, 2, 3, 4, 7, 8, 14, 18, 28, 56

C) 1, 2, 4, 7, 8, 14, 18, 28, 56

D) 2, 4, 7, 8, 14, 28

Answer: A

345) 63

A) 3, 5, 7, 9, 11, 21, 63

B) 1, 3, 5, 7, 9, 11, 21, 63

C) 1, 2, 3, 7, 9, 21, 36, 63

D) 1, 3, 7, 9, 21, 63

Answer: D

346) 66

A) 1, 2, 3, 4, 11, 16, 22, 33, 66

B) 1, 2, 3, 9, 11, 22, 33, 66

C) 1, 3, 11, 22, 33, 66

D) 1, 2, 3, 6, 11, 22, 33, 66

Answer: D

347) 70

A) 1, 2, 5, 7, 10, 14, 35, 70

B) 1, 2, 5, 7, 35, 70

C) 1, 2, 3, 5, 7, 9, 15, 35, 70

D) 1, 3, 5, 7, 9, 15, 20, 35, 70

Answer: A

348) 72

- A) 1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 18, 24, 36, 72
- C) 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72

- B) 1, 2, 3, 4, 6, 9, 12, 14, 18, 24, 36, 72
- D) 1, 2, 3, 4, 6, 8, 9, 12, 24, 36, 72

Answer: C

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, 5, 6, 7, 8, 9, 12, 14, 21, 28, 42, 84
- D) 1, 2, 3, 4, 6, 7, 12, 14, 21, 42, 84

Answer: C

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

350) 2

- A) 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
- C) 2, 4, 6, 8, 10, 12, 14, 16, 18, 20

- B) 0, 2, 4, 6, 8, 10, 12, 14, 16, 18
- D) 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

Answer: C

351) 20

- A) 0, 25, 30, 35, 40, 45, 50, 55, 60, 65
- C) 20, 50, 80, 110, 140, 170, 200, 230, 260, 290

- B) 20, 40, 60, 80, 100, 120, 140, 160, 180, 200
- D) 20, 30, 40, 50, 60, 70, 80, 90, 100, 110

Answer: B

352) 19

- A) 19, 20, 21, 22, 23, 24, 25, 26, 27, 28
- C) 19, 38, 57, 76, 95, 114, 133, 152, 171, 190

- B) 0, 19, 38, 57, 76, 95, 114, 133, 152, 171
- D) 19, 21, 24, 28, 33, 39, 46, 54, 63, 73

Answer: C

353) 75

- A) 75, 175, 275, 375, 475, 575, 675, 775, 875, 975
- C) 0, 80, 85, 90, 95, 100, 105, 110, 115, 120

- B) 75, 85, 95, 105, 115, 125, 135, 145, 155, 165
- D) 75, 150, 225, 300, 375, 450, 525, 600, 675, 750

Answer: D

354) 23

- A) 23, 46, 69, 92, 115, 138, 161, 184, 207, 230
- C) 23, 24, 25, 26, 27, 28, 29, 30, 31, 32

- B) 23, 33, 43, 53, 63, 73, 83, 93, 103, 113
- D) 23, 25, 28, 32, 37, 43, 50, 58, 67, 77

Answer: A

355) 300

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

Answer: D

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

356) 70; 7

- A) Yes

- B) No

Answer: A

- 357) 33; 9
 A) Yes B) No
 Answer: B
- 358) 414; 6
 A) Yes B) No
 Answer: A
- 359) 545; 8
 A) Yes B) No
 Answer: B
- 360) 308; 14
 A) Yes B) No
 Answer: A
- 361) 351; 24
 A) Yes B) No
 Answer: B
- 362) 2163; 3
 A) Yes B) No
 Answer: A
- 363) 1938; 9
 A) Yes B) No
 Answer: B
- 364) 1890; 18
 A) Yes B) No
 Answer: A
- 365) 4485; 25
 A) Yes B) No
 Answer: B

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

- 366) 1
 A) Prime B) Composite C) Neither
 Answer: C
- 367) 2
 A) Neither B) Prime C) Composite
 Answer: B
- 368) 21
 A) Prime B) Composite C) Neither
 Answer: B

369) 89

A) Neither

B) Composite

C) Prime

Answer: C

370) 90

A) Prime

B) Neither

C) Composite

Answer: C

Find the prime factorization of the number.

371) 6

A) $2 \cdot 5$

B) $2 + 3$

C) $2 \cdot 3$

D) $2 \cdot 4$

Answer: C

372) 26

A) $2 \cdot 13$

B) $2 \cdot 2 \cdot 5$

C) $2 \cdot 14$

D) $2 \cdot 2 \cdot 2$

Answer: A

373) 12

A) $2 \cdot 2 \cdot 3$

B) $4 \cdot 3$

C) $3 \cdot 3$

D) $4 \cdot 2$

Answer: A

374) 105

A) $15 \cdot 7$

B) $5 \cdot 5 \cdot 3$

C) $3 \cdot 3 \cdot 7$

D) $3 \cdot 5 \cdot 7$

Answer: D

375) 58

A) $2 \cdot 2 \cdot 29$

B) $2 \cdot 2$

C) $2 \cdot 27$

D) $2 \cdot 29$

Answer: D

376) 126

A) $2 \cdot 3 \cdot 7$

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

C) $2 \cdot 2 \cdot 3 \cdot 3 \cdot 7$

D) $14 \cdot 3 \cdot 3$

Answer: B

377) 48

A) $2 \cdot 2 \cdot 2 \cdot 2$

B) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 5$

C) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 3$

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

Answer: C

378) 645

A) $15 \cdot 43$

B) $5 \cdot 5 \cdot 43$

C) $3 \cdot 5 \cdot 43$

D) $3 \cdot 3 \cdot 43$

Answer: C

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

379) 40

A) 2, 4, 5, 10

B) 2, 4, 5, 8

C) 2, 4, 5

D) 2, 4, 5, 8, 10

Answer: D

380) 14,200

A) 2, 5, 8, 10

B) 2, 4, 5, 8

C) 2, 5, 4, 8, 10

D) 2, 4, 5

Answer: C

- 381) 59
 A) 3, 9 B) 3 C) 3, 5 D) None
 Answer: D
- 382) 3431
 A) None B) 3 C) 3, 9 D) 3, 5
 Answer: A
- 383) 273,829
 A) None B) 3, 5 C) 5 D) 3
 Answer: A
- 384) 2542
 A) 3, 4 B) 2 C) 2, 3, 4 D) 4
 Answer: B
- 385) 1326
 A) 4, 5, 6 B) 3, 4, 6 C) 2, 3, 6 D) 2, 3, 4
 Answer: C
- 386) 2365
 A) 2, 5, 10 B) 10 C) 5, 10 D) 5
 Answer: D
- 387) 9717
 A) 3, 9 B) 2, 3, 9 C) 3 D) 9
 Answer: C
- 388) 57,620
 A) 4, 5, 10 B) 2, 4, 5, 10 C) 4, 5 D) 2, 5
 Answer: B
- Find the LCM of the set of numbers.**
- 389) 5, 20
 A) 4 B) 20 C) 5 D) 100
 Answer: B
- 390) 8, 7
 A) 56 B) 8 C) 28 D) 15
 Answer: A
- 391) 12, 16
 A) 28 B) 48 C) 192 D) 16
 Answer: B
- 392) 14, 21
 A) 42 B) 294 C) 35 D) 21
 Answer: A

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

- 405) 24, 54, 9
 A) 108 B) 54 C) 72 D) 216
 Answer: D
- 406) 18, 24, 56
 A) 1008 B) 432 C) 504 D) 1512
 Answer: C
- 407) 6, 8, 10, 12
 A) 60 B) 90 C) 120 D) 108
 Answer: C
- 408) 27, 42, 24, 56
 A) 3024 B) 4536 C) 1512 D) 1296
 Answer: C

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?
 A) 60 minutes B) 20 minutes C) 10 minutes D) 30 minutes
 Answer: D
- 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?
 A) The 56th batch B) The 28th batch C) The 224th batch D) The 112th batch
 Answer: D
- 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?
 A) 420 seconds B) 42 seconds C) 210 seconds D) 84 seconds
 Answer: C
- 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?
 A) 420 seconds B) 210 seconds C) 630 seconds D) 840 seconds
 Answer: A
- 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?
 A) 420 minutes B) 210 minutes C) 42 minutes D) 105 minutes
 Answer: B

- 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 1980 years B) Every 330 years C) Every 1320 years D) Every 660 years

Answer: D

- 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 4950 years B) Every 990 years C) Every 330 years D) Every 1650 years

Answer: C

- 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 1980 years D) Every 330 years

Answer: A

Answer Key

Testname: UNTITLED1

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

Answer Key

Testname: UNTITLED1

- 51) D
- 52) C
- 53) B
- 54) A
- 55) A
- 56) B
- 57) A
- 58) D
- 59) C
- 60) A
- 61) C
- 62) D
- 63) A
- 64) D
- 65) A
- 66) B
- 67) A
- 68) B
- 69) A
- 70) A
- 71) B
- 72) A
- 73) B
- 74) B
- 75) D
- 76) C
- 77) B
- 78) D
- 79) C
- 80) C
- 81) A
- 82) C
- 83) C
- 84) D
- 85) D
- 86) B
- 87) B
- 88) A
- 89) B
- 90) C
- 91) B
- 92) D
- 93) A
- 94) C
- 95) C
- 96) D
- 97) C
- 98) B
- 99) D
- 100) B

Answer Key

Testname: UNTITLED1

- 101) C
- 102) D
- 103) C
- 104) D
- 105) D
- 106) D
- 107) D
- 108) A
- 109) A
- 110) C
- 111) B
- 112) A
- 113) D
- 114) B
- 115) A
- 116) B
- 117) B
- 118) A
- 119) B
- 120) A
- 121) C
- 122) B
- 123) C
- 124) A
- 125) A
- 126) B
- 127) D
- 128) D
- 129) A
- 130) B
- 131) D
- 132) B
- 133) D
- 134) D
- 135) D
- 136) C
- 137) D
- 138) D
- 139) C
- 140) D
- 141) D
- 142) C
- 143) A
- 144) A
- 145) B
- 146) D
- 147) B
- 148) B
- 149) B
- 150) C

Answer Key

Testname: UNTITLED1

- 151) B
- 152) C
- 153) A
- 154) B
- 155) B
- 156) B
- 157) D
- 158) C
- 159) C
- 160) D
- 161) B
- 162) A
- 163) C
- 164) D
- 165) C
- 166) D
- 167) D
- 168) A
- 169) B
- 170) A
- 171) C
- 172) A
- 173) B
- 174) A
- 175) C
- 176) B
- 177) D
- 178) B
- 179) C
- 180) C
- 181) B
- 182) D
- 183) A
- 184) D
- 185) C
- 186) A
- 187) D
- 188) D
- 189) D
- 190) D
- 191) A
- 192) D
- 193) C
- 194) A
- 195) B
- 196) A
- 197) C
- 198) A
- 199) C
- 200) A

Answer Key

Testname: UNTITLED1

- 201) B
- 202) A
- 203) A
- 204) D
- 205) D
- 206) D
- 207) B
- 208) A
- 209) D
- 210) C
- 211) A
- 212) B
- 213) A
- 214) C
- 215) B
- 216) A
- 217) C
- 218) A
- 219) B
- 220) C
- 221) C
- 222) B
- 223) D
- 224) D
- 225) D
- 226) A
- 227) A
- 228) B
- 229) A
- 230) B
- 231) A
- 232) D
- 233) B
- 234) C
- 235) D
- 236) D
- 237) A
- 238) D
- 239) C
- 240) A
- 241) B
- 242) A
- 243) B
- 244) C
- 245) C
- 246) D
- 247) B
- 248) D
- 249) D
- 250) B

Answer Key

Testname: UNTITLED1

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

Answer Key

Testname: UNTITLED1

- 301) A
- 302) C
- 303) C
- 304) A
- 305) B
- 306) C
- 307) A
- 308) D
- 309) B
- 310) D
- 311) D
- 312) D
- 313) D
- 314) D
- 315) A
- 316) C
- 317) C
- 318) A
- 319) A
- 320) C
- 321) C
- 322) D
- 323) C
- 324) D
- 325) C
- 326) D
- 327) C
- 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
- 336) A
- 337) B
- 338) B
- 339) B
- 340) C
- 341) C
- 342) D
- 343) C
- 344) A
- 345) D
- 346) D
- 347) A
- 348) C

Answer Key

Testname: UNTITLED1

- 349) C
- 350) C
- 351) B
- 352) C
- 353) D
- 354) A
- 355) D
- 356) A
- 357) B
- 358) A
- 359) B
- 360) A
- 361) B
- 362) A
- 363) B
- 364) A
- 365) B
- 366) C
- 367) B
- 368) B
- 369) C
- 370) C
- 371) C
- 372) A
- 373) A
- 374) D
- 375) D
- 376) B
- 377) C
- 378) C
- 379) D
- 380) C
- 381) D
- 382) A
- 383) A
- 384) B
- 385) C
- 386) D
- 387) C
- 388) B
- 389) B
- 390) A
- 391) B
- 392) A
- 393) C
- 394) A
- 395) D
- 396) B
- 397) B
- 398) C

Answer Key

Testname: UNTITLED1

- 399) A
- 400) D
- 401) D
- 402) D
- 403) B
- 404) A
- 405) D
- 406) C
- 407) C
- 408) C
- 409) D
- 410) D
- 411) C
- 412) A
- 413) B
- 414) D
- 415) C
- 416) A