Beginning Algebra 8th edition Martin Gay Test Bank

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

Answer the question according to what the textbook states.

1) Which of these is the most important general tip for success in a mathematics course?
A) Do your homework
B) Check your work
C) Organize your class materials
D) Don't be afraid to ask questions

Answer: C

2) Which of these is NOT listed as a tip to help you succeed in this course?
A) Read your textbook after you attend class.
B) Form study groups and/or exchange names and e–mail addresses.
C) Know how to get help if you need it.
D) Choose to attend all class periods and do your homework.

Answer: A

3) Which of these is NOT an end–of–chapter component designed to help you understand the concepts of the chapter?
A) Calculator Exercises
B) Chapter Tests
C) Vocabulary Checks
D) Chapter Highlights

Answer: A

4) Which of these is listed as one of several steps in preparing for an exam?
A) Leave for the exam as late as possible to increase your amount of study time.
B) Skip the concepts and definitions in the Chapter Highlights at the end of the chapter.
C) Practice working out exercises by working the Chapter Review.
D) Review your class notes, and skip reviewing previous homework assignments.

Answer: C

Insert <, >, or = to make the statement true.

5) $-2 ____ -1$
A) >
B) <
C) =

Answer: B

6) $64 ____ -60$
A) >
B) =
C) <

Answer: A

7) $-43 ____ -9$
A) <
B) =
C) >

Answer: A

8) $4 ____ 0$
A) <
B) =
C) >

Answer: C

9) $-9 ____ -9$
A) =
B) <
C) >

Answer: A

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10) -10 ____ -9

A) = B) > C) <

Answer: C

11) 0 ____ 6

A) > B) = C) <

Answer: C

12) -8 ____ 0

A) = B) > C) <

Answer: C

13) 0 ____ -6

A) = B) > C) <

Answer: B

14) 0.3 ____ 0.4

A) > B) < C) =

Answer: B

15) -7.9 ____ 7.5

A) = B) > C) <

Answer: C

16) -0.2 ____ -1.0

A) < B) > C) =

Answer: B

17) 3.9 ____ 3.9

A) < B) = C) >

Answer: B

18) -200 ____ -20

A) > B) < C) =

Answer: B

19) -8.09 ____ -8.1

A) < B) > C) =

Answer: B

20) $\frac{12}{3}$ ____ $\frac{20}{5}$

A) < B) > C) =

Answer: C

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21) $-\frac{5}{23}$ ____ $-\frac{4}{23}$

A) = B) > C) <

Answer: C

Is the following statement true or false?

22) $20 > 25$

A) True B) False

Answer: B

23) $11 \geq 8$

A) True B) False

Answer: A

24) $-91 < 0$

A) True B) False

Answer: A

25) $25 < -14$

A) True B) False

Answer: B

26) $15 \leq 8$

A) True B) False

Answer: B

27) $-8 \leq 8$

A) True B) False

Answer: A

28) $22 > 14$

A) True B) False

Answer: A

29) $-17 \geq 19$

A) True B) False

Answer: B

30) $5 + 2 \leq 6(3)$

A) True B) False

Answer: A

31) $8 \cdot 7 \leq 11 + 16$

A) True B) False

Answer: B

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Solve the problem.

32) Building A is 65 feet tall. Building B is 83 feet tall. Write an inequality statement using < or > comparing the numbers 65 and 83.

A) $65 > 83$ B) $65 < 83$

Answer: B

33) On Tuesday, the temperature was 61° Fahrenheit. On Thursday, the temperature was 48° Fahrenheit. Write an inequality statement using < or > comparing the numbers 61 and 48.

A) $61 > 48$ B) $61 < 48$

Answer: A

34) At Relax Resort, the Beginner's Trail is 7 kilometers long. The Advanced Trail is 17 kilometers long. Write an inequality statement using ≤ or ≥ comparing the numbers 7 and 17.

A) $7 \geq 17$ B) $7 \leq 17$

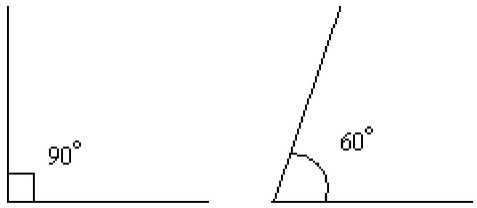
Answer: B

35) As part of a fund raiser, Maria sold 299 candy bars. Drew sold 146 candy bars. Write an inequality statement using ≤ or ≥ comparing the numbers 299 and 146.

A) $299 \geq 146$ B) $299 \leq 146$

Answer: A

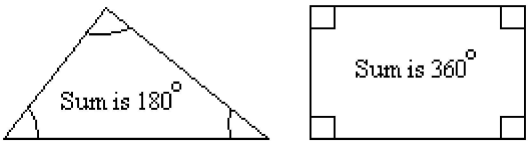
36) An angle measuring 90° is shown and an angle measuring 60° is shown. Use the inequality symbol ≤ or ≥ to write a statement comparing the numbers 90 and 60.



A) $90 \leq 60$ B) $90 \geq 60$

Answer: B

37) The sum of the measures of the angles of a triangle is 180°. The sum of the measures of the angles of a rectangle is 360°. Use the inequality symbol ≤ or ≥ to write a statement comparing the numbers 180 and 360.



A) $180 \leq 360$ B) $180 \geq 360$

Answer: A

Write the sentence as a mathematical statement.

38) Eighteen is greater than two.

A) $18 < 2$ B) $18 \geq 2$ C) $18 > 2$ D) $18 = 2$

Answer: C

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39) Negative fifty–five is less than negative eleven.
A) $-55 < 11$ B) $-55 \leq -11$ C) $-55 > -11$ D) $-55 < -11$
Answer: D

40) Seven is greater than or equal to two.
A) $7 = 2$ B) $7 > 2$ C) $7 \geq 2$ D) $7 \leq 2$
Answer: C

41) Fifteen is less than or equal to sixteen.
A) $15 < 16$ B) $15 \geq 16$ C) $15 \neq 16$ D) $15 \leq 16$
Answer: D

42) Negative forty–eight is equal to negative forty–eight.
A) $-48 \leq -48$ B) $-48 = -48$ C) $-48 \neq -48$ D) $-48 \geq -48$
Answer: B

43) Thirty–seven is not equal to negative thirty–seven.
A) $37 \leq -37$ B) $37 \neq -37$ C) $37 \geq -37$ D) $37 = -37$
Answer: B

44) Forty–one is greater than or equal to forty–one.
A) $41 > 41$ B) $41 \leq 41$ C) $41 \geq 41$ D) $41 = 41$
Answer: C

45) Twenty–four is less than or equal to twenty–four.
A) $24 \leq 24$ B) $24 \geq 24$ C) $24 < 24$ D) $24 = 24$
Answer: A

Use an integer to represent the value in the statement.

46) 5° above zero
A) 5 B) –5
Answer: A

47) a climb of 135 feet down into a subterranean cave
A) –135 B) 135
Answer: A

48) 338 feet above sea level
A) –338 B) 338
Answer: B

49) $253 loss
A) 253 B) –253
Answer: B

50) 48–pound loss
A) –48 B) 48
Answer: A

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51) finding 30 cents

A) –30 B) 30

Answer: B

52) $3,006 in debt

A) 3,006 B) –3,006

Answer: B

53) The team scored 25 points.

A) –25 B) 25

Answer: B

54) a deposit of $250.71 in your checkbook

A) 250.71 B) –250.71

Answer: A

55) a decrease of 143 feet in elevation

A) –143 B) 143

Answer: A

Tell which set or sets the number belongs to: natural numbers, whole numbers, integers, rational numbers, irrational numbers, and real numbers.

56) 3

A) natural, whole, integer, rational, real B) whole, rational, real

C) integer, rational, real D) real

Answer: A

57) –26

A) whole, real B) integer, rational, real

C) irrational, real D) real

Answer: B

58) $\sqrt{19}$

A) irrational, real B) rational, real C) whole, real D) integer, real

Answer: A

59) 0

A) integer, real B) whole, integer, rational, real

C) whole, real D) rational, real

Answer: B

60) 4.20

A) rational B) natural, rational, real

C) rational, real D) real

Answer: C

61) 0.5151...

A) natural, rational, real B) rational, real

C) irrational, real D) real

Answer: B

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62) $\frac{3}{4}$

A) rational, real B) whole, real C) irrational, real D) real

Answer: A

63) $-\sqrt{13}$

A) whole, real B) irrational, real C) integer, real D) rational, real

Answer: B

Tell whether the statement is true or false.

64) Every rational number is an integer.

A) True B) False

Answer: B

65) Every irrational number is an integer.

A) True B) False

Answer: B

66) Every whole number is a real number.

A) True B) False

Answer: A

67) Some rational numbers are irrational.

A) True B) False

Answer: B

68) Some rational numbers are integers.

A) True B) False

Answer: A

69) Every integer is an irrational number.

A) True B) False

Answer: B

70) Some real numbers are integers.

A) True B) False

Answer: A

71) 0 is a natural number.

A) True B) False

Answer: B

72) $\frac{1}{4}$ is an integer.

A) True B) False

Answer: B

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Find the absolute value of the number.

73) $|18|$

A) 0 B) 36 C) 18 D) –18

Answer: C

74) $|-7|$

A) 7 B) 0 C) –7 D) 14

Answer: A

75) $|0|$

A) does not exist B) 0

Answer: B

Insert <, >, or = to make the statement true.

76) $|-7|$ ____ $|-20|$

A) < B) = C) >

Answer: A

77) 0 ____ $|-7|$

A) = B) < C) >

Answer: B

78) $-|-13|$ ____ $-|-24|$

A) < B) = C) >

Answer: C

79) $|-8|$ ____ $|6|$

A) < B) = C) >

Answer: C

80) $|-3|$ ____ $|3|$

A) < B) = C) >

Answer: B

81) $|-8|$ ____ 0

A) < B) > C) =

Answer: B

82) $\left|\frac{5}{6}\right|$ ____ $\left|-\frac{5}{6}\right|$

A) = B) > C) <

Answer: A

83) $|-11|$ ____ $\frac{-22}{2}$

A) > B) = C) <

Answer: A

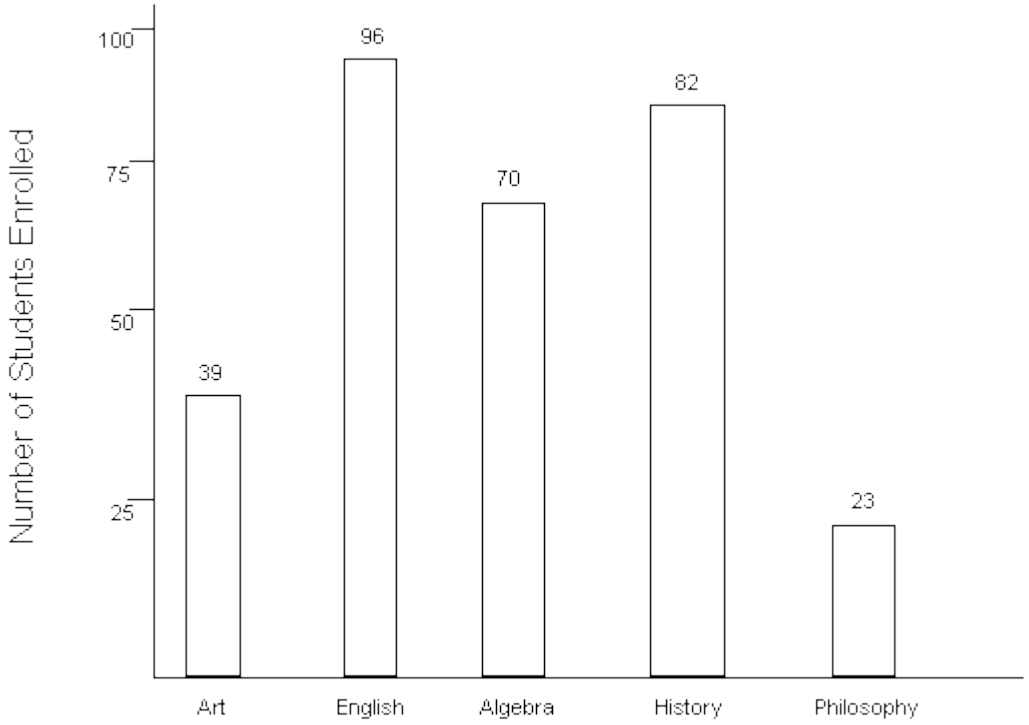
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84) $|-40|$ ____ -400

A) $<$ B) $=$ C) $>$

Answer: C

The graph below shows the number of students enrolled in various courses at State University in spring 2000. Each bar represents a different course, and the height of the bar represents the number of students enrolled. Use the graph to answer the question.



85) Which course had the highest enrollment?

A) History B) Philosophy C) Algebra D) English

Answer: D

86) For which courses was enrollment greater than 80?

A) English, Algebra, and History B) English and Algebra

C) English D) English and History

Answer: D

87) Write an inequality statement using $<$ or $>$ comparing the number of students enrolled in History and Algebra.

A) $82 < 70$ B) $82 > 70$ C) $82 \geq 70$ D) $82 \leq 70$

Answer: B

Write the fraction in lowest terms.

88) $\frac{2}{4}$

A) $\frac{4}{8}$ B) 2 C) $\frac{1}{2}$ D) $\frac{2}{4}$

Answer: C

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89) $\frac{5}{7}$

A) $\frac{1}{7}$ B) $\frac{1}{5}$ C) $\frac{5}{7}$ D) $\frac{1}{2}$

Answer: C

90) $\frac{70}{80}$

A) $\frac{70}{80}$ B) $\frac{7}{8}$ C) $\frac{10}{8}$ D) $\frac{7}{10}$

Answer: B

91) $\frac{35}{42}$

A) $\frac{35}{42}$ B) $\frac{5}{6}$ C) $\frac{7}{6}$ D) $\frac{5}{7}$

Answer: B

92) $\frac{66}{77}$

A) $\frac{66}{77}$ B) $\frac{6}{7}$ C) $\frac{11}{7}$ D) $\frac{6}{11}$

Answer: B

93) $\frac{23}{42}$

A) $\frac{21}{11}$ B) $\frac{23}{42}$ C) $\frac{1}{42}$ D) $\frac{11}{21}$

Answer: B

Write the number as a product of primes.

94) 22

A) $2 \cdot 13$ B) $2 \cdot 2 \cdot 11$ C) $2 \cdot 2 \cdot 13$ D) $2 \cdot 11$

Answer: D

95) 27

A) $3 \cdot 9$ B) $3 \cdot 3 \cdot 3$ C) $3 \cdot 3$ D) $2 \cdot 2 \cdot 3$

Answer: B

96) 66

A) $2 \cdot 2 \cdot 11$ B) $6 \cdot 11$ C) $2 \cdot 3 \cdot 11$ D) $3 \cdot 3 \cdot 2$

Answer: C

97) 63

A) $21 \cdot 3$ B) $3 \cdot 3 \cdot 7$ C) $7 \cdot 7$ D) $9 \cdot 7$

Answer: B

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98) 60

A) $2 \cdot 2 \cdot 3 \cdot 5$ B) $2 \cdot 3 \cdot 5$ C) $2 \cdot 2 \cdot 3 \cdot 3$ D) $2 \cdot 2 \cdot 2 \cdot 3 \cdot 5$

Answer: A

99) 32

A) $2 \cdot 2 \cdot 2 \cdot 5$ B) $2 \cdot 2 \cdot 7$ C) $2 \cdot 2 \cdot 2 \cdot 2$ D) $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2$

Answer: D

Multiply or divide as indicated. Write the answer in lowest terms.

100) $\frac{1}{8} \cdot \frac{5}{9}$

A) $\frac{72}{5}$ B) $\frac{6}{17}$ C) $\frac{5}{72}$ D) $\frac{40}{9}$

Answer: C

101) $\frac{2}{9} \cdot \frac{5}{6}$

A) $\frac{4}{15}$ B) $\frac{5}{27}$ C) $3\frac{3}{4}$ D) $5\frac{2}{5}$

Answer: B

102) $\frac{5}{4} \cdot \frac{5}{4}$

A) $1\frac{9}{16}$ B) 1 C) $\frac{1}{20}$ D) 20

Answer: A

103) $\frac{12}{5} \cdot \frac{1}{9}$

A) $\frac{4}{15}$ B) $\frac{34}{15}$ C) $\frac{2}{15}$ D) $\frac{92}{45}$

Answer: A

104) $\frac{2}{4} \cdot \frac{19}{12}$

A) $\frac{21}{16}$ B) $\frac{19}{24}$ C) $\frac{14}{23}$ D) $\frac{6}{19}$

Answer: B

105) $\frac{3}{8} \div \frac{10}{3}$

A) $\frac{9}{80}$ B) $\frac{4}{5}$ C) $1\frac{1}{4}$ D) $8\frac{8}{9}$

Answer: A

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106) $\frac{1}{6} \div \frac{1}{3}$

A) $\frac{2}{3}$ B) $\frac{2}{9}$ C) $\frac{1}{18}$ D) $\frac{1}{2}$

Answer: D

107) $\frac{6}{10} \div \frac{5}{17}$

A) $\frac{11}{27}$ B) $\frac{3}{170}$ C) $\frac{51}{25}$ D) $56\frac{2}{3}$

Answer: C

108) $\frac{3}{19} \div \frac{1}{14}$

A) $\frac{42}{19}$ B) $\frac{4}{33}$ C) $\frac{266}{3}$ D) $\frac{3}{266}$

Answer: A

109) $\frac{6}{11} \div \frac{7}{12}$

A) $\frac{70}{77}$ B) $\frac{72}{75}$ C) $\frac{72}{77}$ D) $\frac{71}{77}$

Answer: C

110) $\frac{7}{17} \div \frac{5}{12}$

A) $\frac{83}{85}$ B) $\frac{84}{83}$ C) $\frac{82}{85}$ D) $\frac{84}{85}$

Answer: D

111) $1\frac{3}{8} \cdot \frac{4}{7}$

A) $\frac{11}{14}$ B) $3\frac{11}{14}$ C) $\frac{9}{14}$ D) $1\frac{12}{56}$

Answer: A

112) $3 \cdot 3\frac{2}{15}$

A) 9 B) $8\frac{2}{5}$ C) $9\frac{2}{15}$ D) $9\frac{2}{5}$

Answer: D

113) $4\frac{4}{5} \cdot 2\frac{7}{8}$

A) $13\frac{4}{5}$ B) $15\frac{3}{10}$ C) $1\frac{4}{5}$ D) $8\frac{7}{10}$

Answer: A

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114) $7\frac{1}{2} \cdot 1\frac{3}{5}$

A) 13 B) 10 C) $7\frac{1}{10}$ D) 12

Answer: D

115) $5\frac{1}{3} \cdot 3\frac{3}{4}$

A) 13 B) 20 C) 15 D) 19

Answer: B

116) $3\frac{7}{8} \div \frac{1}{8}$

A) $\frac{31}{64}$ B) $24\frac{7}{8}$ C) 10 D) 31

Answer: D

117) $\frac{2}{7} \div 8$

A) $2\frac{2}{7}$ B) 28 C) $\frac{1}{28}$ D) $\frac{1}{4}$

Answer: C

118) $2\frac{4}{5} \div 7$

A) $\frac{1}{5}$ B) $\frac{3}{5}$ C) $\frac{1}{2}$ D) $\frac{2}{5}$

Answer: D

119) $1\frac{3}{7} \div \frac{2}{7}$

A) 6 B) 4 C) 5 D) $3\frac{1}{2}$

Answer: C

120) $2\frac{2}{3} \div 3\frac{1}{12}$

A) $8\frac{2}{9}$ B) $\frac{32}{37}$ C) 4 D) $8\frac{2}{3}$

Answer: B

121) $5\frac{3}{5} \div 4\frac{1}{5}$

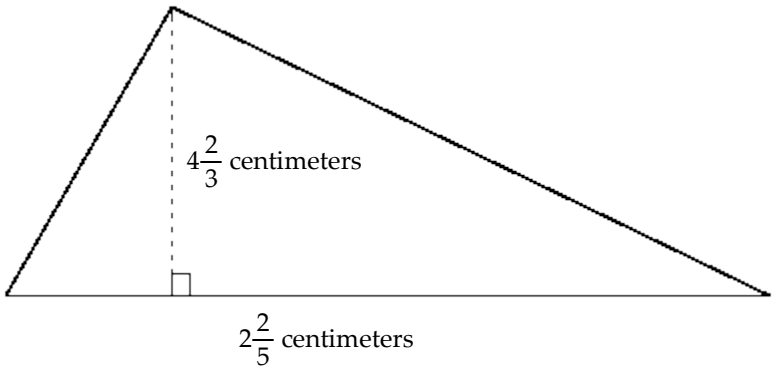
A) $2\frac{1}{3}$ B) $1\frac{2}{3}$ C) $1\frac{1}{2}$ D) $1\frac{1}{3}$

Answer: D

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Find the area of the figure below. (The area of a rectangle is the product of its length and width. The area of a triangle is $\frac{1}{2}$ the product of its base and height.)

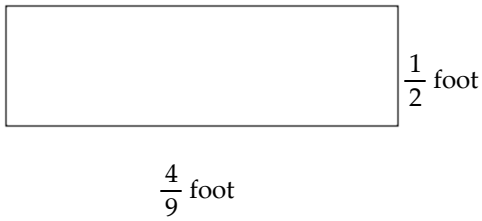
122)



A) $22\frac{2}{5}$ sq cm B) $7\frac{1}{15}$ sq cm C) $5\frac{3}{5}$ sq cm D) $11\frac{1}{5}$ sq cm

Answer: C

123)



A) $\frac{4}{11}$ sq ft B) $\frac{5}{11}$ sq ft C) $\frac{2}{9}$ sq ft D) $\frac{4}{18}$ sq ft

Answer: C

Add or subtract as indicated. Write the answer in lowest terms.

124) $\frac{7}{9} + \frac{1}{9}$

A) $\frac{8}{9}$ B) $\frac{7}{9}$ C) $\frac{9}{10}$ D) $\frac{7}{8}$

Answer: A

125) $\frac{2}{5} + \frac{3}{5}$

A) $\frac{5}{10}$ B) $\frac{1}{2}$ C) 1 D) $\frac{5}{5}$

Answer: C

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126) $\frac{13}{86} + \frac{11}{86}$

A) $\frac{13}{44}$ B) $\frac{11}{42}$ C) $\frac{12}{43}$ D) $\frac{11}{43}$

Answer: C

127) $\frac{6}{8} - \frac{3}{8}$

A) $\frac{3}{16}$ B) $\frac{1}{2}$ C) $\frac{3}{4}$ D) $\frac{3}{8}$

Answer: D

128) $\frac{7}{12} - \frac{1}{12}$

A) $\frac{6}{0}$ B) $\frac{6}{24}$ C) $\frac{6}{12}$ D) $\frac{1}{2}$

Answer: D

129) $\frac{51}{77} - \frac{26}{77}$

A) $17\frac{17}{77}$ B) $\frac{25}{77}$ C) 1 D) $\frac{25}{154}$

Answer: B

130) $\frac{2}{7} + \frac{5}{6}$

A) $\frac{1}{6}$ B) $\frac{47}{42}$ C) $\frac{7}{13}$ D) $\frac{22}{21}$

Answer: B

131) $\frac{3}{5} + \frac{2}{25}$

A) $\frac{17}{25}$ B) $\frac{1}{6}$ C) $\frac{86}{125}$ D) $\frac{1}{5}$

Answer: A

132) $\frac{11}{14} + \frac{1}{10}$

A) $\frac{6}{35}$ B) $\frac{31}{35}$ C) $\frac{4}{5}$ D) $\frac{31}{12}$

Answer: B

133) $\frac{7}{8} - \frac{3}{5}$

A) $\frac{1}{10}$ B) $\frac{11}{8}$ C) $\frac{11}{40}$ D) $\frac{1}{2}$

Answer: C

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134) $\frac{5}{21} - \frac{1}{6}$

A) $\frac{1}{42}$ B) $\frac{1}{14}$ C) $\frac{3}{14}$ D) $\frac{2}{21}$

Answer: B

135) $\frac{11}{28} - \frac{4}{35}$

A) $\frac{51}{140}$ B) $\frac{1}{20}$ C) $\frac{39}{980}$ D) $\frac{39}{140}$

Answer: D

136) $\frac{17}{4} - 2$

A) $\frac{9}{4}$ B) 15 C) $\frac{33}{2}$ D) $\frac{15}{4}$

Answer: A

137) $12 - \frac{7}{3}$

A) $\frac{7}{9}$ B) $\frac{43}{3}$ C) $\frac{29}{3}$ D) $\frac{5}{3}$

Answer: C

138) $1\frac{1}{3} + 5\frac{5}{9}$

A) 1 B) $3\frac{1}{9}$ C) $6\frac{8}{9}$ D) $1\frac{7}{9}$

Answer: C

139) $15\frac{2}{5} + 13\frac{1}{5}$

A) $27\frac{3}{5}$ B) $15\frac{3}{5}$ C) $29\frac{3}{5}$ D) $28\frac{3}{5}$

Answer: D

140) $10\frac{2}{5} + 2\frac{3}{9}$

A) $11\frac{11}{15}$ B) $10\frac{11}{15}$ C) $12\frac{11}{15}$ D) $13\frac{11}{15}$

Answer: C

141) $17\frac{2}{5} - \frac{16}{25}$

A) 16 B) $16\frac{19}{25}$ C) $15\frac{19}{25}$ D) $17\frac{19}{25}$

Answer: B

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142) $16\frac{5}{9} - 8\frac{7}{9}$

A) $24\frac{7}{9}$ B) $23\frac{7}{9}$ C) $7\frac{6}{9}$ D) $7\frac{7}{9}$

Answer: D

143) $8\frac{7}{18} - 3\frac{1}{30}$

A) $5\frac{17}{45}$ B) $5\frac{16}{45}$ C) $5\frac{1}{15}$ D) $4\frac{16}{45}$

Answer: B

144) $6\frac{2}{9} - 3\frac{5}{6}$

A) $1\frac{7}{18}$ B) $2\frac{5}{18}$ C) $2\frac{7}{18}$ D) $1\frac{5}{6}$

Answer: C

145) $\frac{4}{9} + \frac{1}{3} - \frac{1}{6}$

A) $\frac{17}{9}$ B) $\frac{11}{9}$ C) $\frac{17}{18}$ D) $\frac{11}{18}$

Answer: D

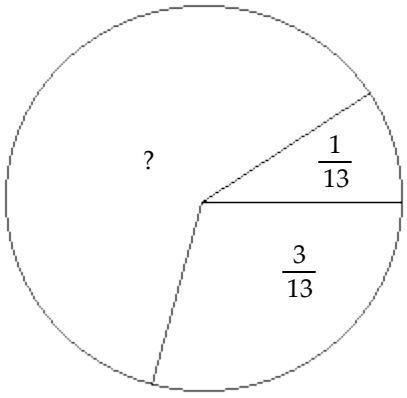
146) $\frac{5}{8} - \frac{6}{11} + \frac{1}{2}$

A) $\frac{51}{176}$ B) $\frac{51}{44}$ C) $\frac{51}{88}$ D) $\frac{147}{88}$

Answer: C

The circle represents a whole, or 1. Use subtraction to determine the unknown part of the circle.

147)

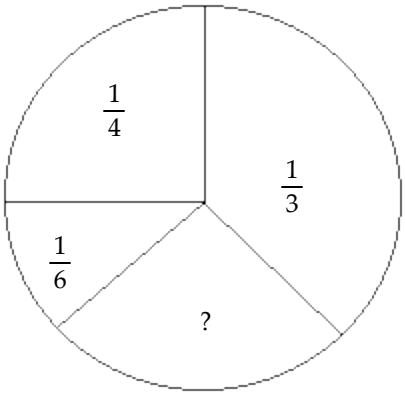


A) $\frac{4}{13}$ B) $\frac{15}{13}$ C) $\frac{11}{13}$ D) $\frac{9}{13}$

Answer: D

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148)

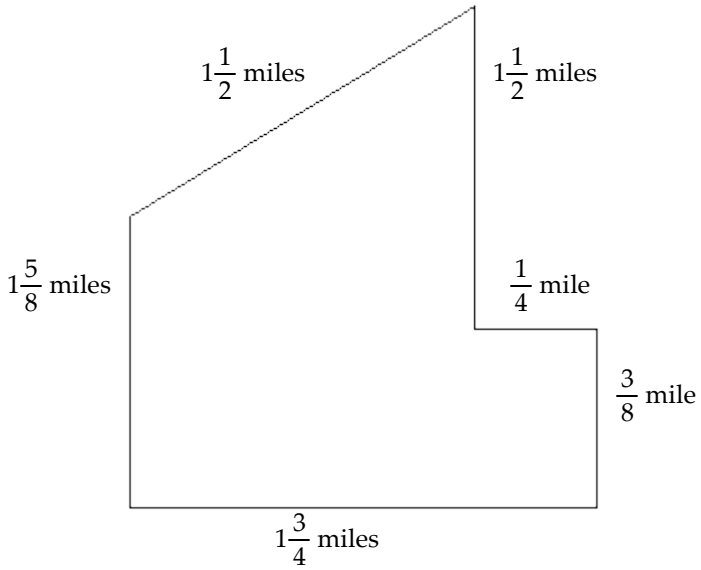


A) $\frac{1}{3}$ B) $\frac{3}{4}$ C) $\frac{1}{2}$ D) $\frac{1}{4}$

Answer: D

The perimeter of a plane figure is the total distance around the figure. Find the perimeter of the figure.

149)



A) $5\frac{1}{2}$ miles B) $5\frac{3}{4}$ miles C) $3\frac{3}{4}$ miles D) 7 miles

Answer: D

Solve. Simplify the answer.

150) Jeffrey has two packages. One weighs $1\frac{3}{4}$ ounces, and the other weighs $\frac{2}{7}$ of an ounce. What is the total weight of the two packages?

A) $\frac{9}{11}$ oz B) $3\frac{8}{11}$ oz C) $\frac{1}{2}$ oz D) $2\frac{1}{28}$ oz

Answer: D

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151) Last week, Samantha ran 17 miles. This week, she ran $15\frac{2}{3}$ miles. How much more did she run last week?

A) $1\frac{1}{3}$ mi B) $32\frac{2}{3}$ mi C) $21\frac{1}{3}$ mi D) $1\frac{21}{47}$ mi

Answer: A

152) The total length of a motor cycle race is $\frac{8}{10}$ of a mile. Chloe has completed $\frac{7}{10}$ of a mile. How much does she have left to complete?

A) $\frac{1}{10}$ mi B) $\frac{4}{5}$ mi C) $\frac{3}{2}$ mi D) $\frac{7}{10}$ mi

Answer: A

153) Ian walked $\frac{2}{22}$ of a mile to his biology class, $\frac{4}{22}$ of a mile to his art class, $\frac{6}{22}$ of a mile to his calculus class, and then back to his dormitory. If he walked 1 mile altogether, how far did he walk from his calculus class to his dormitory?

A) $\frac{8}{11}$ mi B) $\frac{6}{11}$ mi C) $\frac{5}{11}$ mi D) $\frac{7}{11}$ mi

Answer: C

154) Erika spent $\frac{3}{4}$ of an hour on her computer visiting the history channel and the discovery channel websites. She spent $\frac{1}{5}$ of an hour at the history channel website. How many hours did she spend at the discovery channel website?

A) $\frac{1}{10}$ hr B) $\frac{11}{20}$ hr C) $\frac{1}{2}$ hr D) $\frac{7}{10}$ hr

Answer: B

155) Chris rode her bicycle $17\frac{1}{2}$miles on Tuesday. On Thursday, she rode $7\frac{1}{6}$ miles. What was her total biking distance for those two days?

A) $24\frac{2}{3}$ mi B) $17\frac{2}{3}$ mi C) $23\frac{2}{3}$ mi D) $25\frac{2}{3}$ mi

Answer: A

156) Jerry caught a fish that weighed $14\frac{1}{9}$ pounds. Pat caught a fish that weighed $8\frac{2}{9}$ pounds. How much more did Jerry's fish weigh than Pat's fish?

A) $5\frac{7}{9}$ lb B) $21\frac{8}{9}$ lb C) $22\frac{8}{9}$ lb D) $5\frac{8}{9}$ lb

Answer: D

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157) Angie is wrapping a present for her nephew. She has a roll of wrapping paper that has 13 feet of wrapping paper on the roll. She uses $7\frac{1}{7}$ feet to wrap the present. How many feet of wrapping paper are left on the roll?

A) $12\frac{6}{7}$ ft B) $5\frac{6}{7}$ ft C) $6\frac{6}{7}$ ft D) $6\frac{1}{7}$ ft

Answer: B

158) A painter used $6\frac{5}{6}$ gallons of paint to paint the front of a house and another $6\frac{3}{8}$ gallons to paint the back. How much paint did he use in total?

A) $13\frac{5}{24}$ gal B) $12\frac{58}{48}$ gal C) $12\frac{23}{48}$ gal D) $12\frac{5}{24}$ gal

Answer: A

159) The front cover of a book measures $5\frac{1}{2}$ inches by $9\frac{3}{5}$ inches. What is the total distance around (the perimeter of) the front cover of the book?

A) $29\frac{3}{5}$ in. B) $30\frac{1}{5}$ in. C) $29\frac{2}{5}$ in. D) $15\frac{1}{10}$ in.

Answer: B

160) To obtain a certain shade of paint, Peter mixed $2\frac{1}{4}$ gallons of white paint with $2\frac{1}{2}$ gallons of brown paint and $2\frac{3}{8}$ gallons of blue paint. How much paint did he have?

A) $\frac{8}{57}$ gal B) $7\frac{1}{8}$ gal C) $2\frac{2}{5}$ gal D) $\frac{5}{12}$ gal

Answer: B

161) A laminated lab bench has $2\frac{4}{5}$ inches of plywood, $1\frac{1}{9}$ inches of pressed board, and $\frac{5}{11}$ of an inch of formica. What is the thickness of the lab bench?

A) $4\frac{181}{495}$ in. B) $\frac{25}{29}$ in. C) $1\frac{4}{25}$ in. D) $\frac{495}{2161}$ in.

Answer: A

162) Daniel is $70\frac{1}{5}$ inches tall and his brother Tyler is $67\frac{11}{20}$ inches tall. How much taller is Daniel?

A) $3\frac{13}{20}$ in. B) $2\frac{13}{20}$ in. C) $2\frac{2}{3}$ in. D) $3\frac{7}{20}$ in.

Answer: B

163) June wants to work for $12\frac{1}{4}$ hours at her part–time job this week. She has already worked $7\frac{3}{4}$ hours. How many more hours does she need to work?

A) $4\frac{1}{2}$ hr B) $5\frac{1}{2}$ hr C) $3\frac{1}{2}$ hr D) 4 hr

Answer: A

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164) A Boeing 767 flew 920 miles on a nonstop flight. On the return flight, it landed after having flown $530\frac{7}{9}$ miles. How far was the plane from its original point of departure?

A) $390\frac{7}{9}$ mi B) $389\frac{7}{9}$ mi C) $389\frac{2}{9}$ mi D) $390\frac{2}{9}$ mi

Answer: C

165) Brian was training to run a marathon. During the three-day period before the race he decided that he would train for a total of 10 hours. If he trained for $1\frac{4}{5}$ hours on the first day and $3\frac{7}{10}$ hours on the second day, how many hours would he need to train on the third day?

A) $5\frac{1}{2}$ hr B) $4\frac{1}{2}$ hr C) $4\frac{9}{10}$ hr D) $4\frac{3}{5}$ hr

Answer: B

Write the fraction as an equivalent fraction with the given denominator.

166) $\frac{7}{11}$ with a denominator of 22

A) $\frac{2}{22}$ B) $\frac{77}{22}$ C) $\frac{14}{22}$ D) $\frac{7}{22}$

Answer: C

167) $\frac{6}{11}$ with a denominator of 55

A) $\frac{30}{55}$ B) $\frac{5}{55}$ C) $\frac{66}{55}$ D) $\frac{6}{55}$

Answer: A

168) $\frac{7}{4}$ with a denominator of 12

A) $\frac{21}{12}$ B) $\frac{28}{12}$ C) $\frac{3}{12}$ D) $\frac{7}{12}$

Answer: A

169) $\frac{2}{3}$ with a denominator of 21

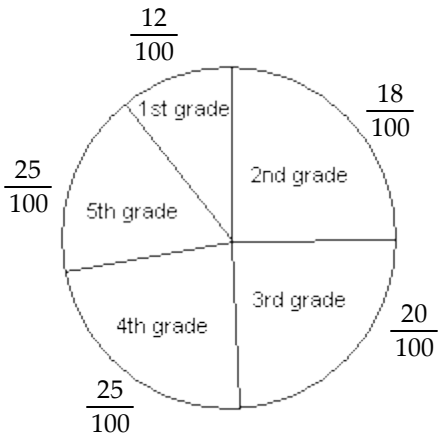
A) $\frac{2}{21}$ B) $\frac{14}{21}$ C) $\frac{6}{21}$ D) $\frac{7}{21}$

Answer: B

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Solve. Simplify the answer.

170) The circle graph shows the fraction of books read by grades one through five. What fraction of books was NOT read by the fifth and first grades?



A) $\frac{37}{100}$ B) $\frac{3}{4}$ C) $\frac{22}{25}$ D) $\frac{63}{100}$

Answer: D

Evaluate.

171) 10^2

A) 20 B) 121 C) 1,024 D) 100

Answer: D

172) 7^3

A) 343 B) 2,187 C) 216 D) 21

Answer: A

173) 10^4

A) 1,000 B) 10,000 C) 1,048,576 D) 40

Answer: B

174) 6^5

A) 15,625 B) 46,656 C) 30 D) 7,776

Answer: D

175) $\left(\frac{1}{3}\right)^2$

A) $\frac{2}{3}$ B) $\frac{1}{9}$ C) $\frac{1}{6}$ D) $\frac{1}{5}$

Answer: B

176) $(0.7)^2$

A) 1.4 B) 49 C) 0.35 D) 0.49

Answer: D

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177) $(0.57)^2$

A) 0.285 B) 1.14 C) 32.49 D) 0.3249

Answer: D

Simplify the expression.

178) $9 \cdot 4 - 4$

A) 144 B) 40 C) 0 D) 32

Answer: D

179) $29 + 13 \cdot 23$

A) 65 B) 400 C) 328 D) 966

Answer: C

180) $8 \cdot 18 + 13 \cdot 12$

A) 1,884 B) 2,976 C) 1,392 D) 300

Answer: D

181) $3^4 + 8^2$

A) 76 B) 97 C) 28 D) 145

Answer: D

182) $8^2 - 4 \cdot 6$

A) 360 B) 96 C) 40 D) 192

Answer: C

183) $\frac{1}{6} + \frac{1}{9} \cdot \frac{1}{7}$

A) $\frac{1}{189}$ B) $\frac{61}{54}$ C) $\frac{5}{126}$ D) $\frac{23}{126}$

Answer: D

184) $\frac{4}{5} \cdot \frac{1}{7} + \frac{5}{6} \cdot \frac{1}{5}$

A) $\frac{59}{110}$ B) $\frac{59}{160}$ C) $\frac{11}{42}$ D) $\frac{59}{210}$

Answer: D

185) $\frac{3+6}{1+4}$

A) 1 B) $-\frac{3}{5}$ C) $\frac{9}{5}$ D) -3

Answer: C

186) $\frac{193+7}{3^2-4}$

A) 40 B) 38 C) 100 D) 60

Answer: A

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187) $(16 + 24) \cdot (30 - 6)$

A) 960 B) 1,194 C) 64 D) 1.67

Answer: A

188) $2 + (20 \cdot 19) - 29$

A) 389 B) 353 C) −220 D) 12

Answer: B

189) $8[3 + 4(3 + 4)]$

A) 52 B) 388 C) 392 D) 248

Answer: D

190) $(4 + 3)[6 + (6 + 6)]$

A) 79 B) 126 C) 216 D) 504

Answer: B

191) $[29 - (4 + 6) \div 2] - [1 + 6 \div 3]$

A) 18 B) 21 C) 16 D) 28

Answer: B

192) $\dfrac{44(10 - 7) - 24}{3^2 - 3}$

A) 23 B) 18 C) 36 D) 22

Answer: B

193) $|-9| + |16 + 11|$

A) 41 B) 18 C) 36 D) 14

Answer: C

194) $\dfrac{14 + |16 - 4|}{12 - 2}$

A) $\frac{13}{7}$ B) $\frac{13}{5}$ C) $\frac{17}{5}$ D) 36

Answer: B

Evaluate the expression when x = 2, y = 1, and z = 4.

195) $3z$

A) 3 B) 7 C) 12 D) 4

Answer: C

196) $\dfrac{y}{5x}$

A) $\frac{1}{10}$ B) 10 C) $\frac{y}{10}$ D) $\frac{2}{5}$

Answer: A

197) $4x + 8$

A) 40 B) 16 C) 20 D) 64

Answer: B

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198) $|7z - 4y|$

A) 20 B) 24 C) 32 D) –24

Answer: B

199) $3z^2$

A) 18 B) 48 C) 24 D) 19

Answer: B

Evaluate the expression for the given replacement values.

200) $\frac{10x}{y} + y^3$ $x = 5, y = 7$

A) $\frac{393}{7}$ B) 139 C) $\frac{71}{7}$ D) $\frac{2451}{7}$

Answer: D

201) $\frac{13x - 15y}{13}$ $x = 6, y = 2$

A) $\frac{64}{13}$ B) $\frac{108}{13}$ C) $\frac{48}{13}$ D) $\frac{63}{13}$

Answer: C

202) $\frac{10x - 2y}{x + 10}$ $x = 4, y = 2$

A) $\frac{6}{7}$ B) 3 C) $\frac{18}{7}$ D) 1

Answer: C

203) $(x + 4y)^2$ $x = 3, y = 4$

A) 38 B) 49 C) 19 D) 361

Answer: D

204) $5y + \frac{60}{x}$ $x = 5, y = 7$

A) 95 B) 47 C) 12 D) 17

Answer: B

205) $\frac{y}{z} + 2x^2$ $x = 6, y = 16, z = 8$

A) 74 B) 130 C) 76 D) 38

Answer: A

206) $\frac{x^2 + z}{y^2 - -2z}$ $x = 3, y = 3, z = 11$

A) $-\frac{20}{13}$ B) – 10 C) $\frac{20}{31}$ D) $\frac{99}{31}$

Answer: C

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207) Neglecting air resistance, the expression $16t^2$ gives the distance in feet an object will fall in t seconds. Complete the chart below.

Time t (in seconds)	Distance $16t^2$ (in feet)
0	
2	
4	

A)

Time t (in seconds)	Distance $16t^2$ (in feet)
0	16
2	144
4	400

B)

Time t (in seconds)	Distance $16t^2$ (in feet)
0	0
2	16
4	64

C)

Time t (in seconds)	Distance $16t^2$ (in feet)
0	0
2	32
4	64

D)

Time t (in seconds)	Distance $16t^2$ (in feet)
0	0
2	64
4	256

Answer: D

Decide whether the given number is a solution of the given equation.

208) Is 4 a solution of $x + 3 = 7$?

A) yes B) no

Answer: A

209) Is 15 a solution of $x - 2 = 13$?

A) yes B) no

Answer: A

210) Is 6 a solution of $2x + 5 = 19$?

A) yes B) no

Answer: B

211) Is 11 a solution of $x + 2 = 13x$?

A) yes B) no

Answer: B

212) Is 13 a solution of $x - 3 = x - 10$?

A) yes B) no

Answer: B

213) Is 8 a solution of $6x - 8 = 56 - 2x$?

A) yes B) no

Answer: A

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214) Is 0 a solution of $x = 5x - 20$?

A) yes B) no

Answer: B

215) Is 5 a solution of $6 = 1 + x$?

A) yes B) no

Answer: A

Write the phrase as an algebraic expression. Let x represent the unknown number.

216) Two more than a number

A) $\frac{x}{2}$ B) $x - 2$ C) $x + 2$ D) $2x$

Answer: C

217) Two–sevenths times a number

A) $\frac{2}{7} - x$ B) $x - \frac{2}{7}$ C) $\frac{2}{7} + x$ D) $\frac{2}{7}x$

Answer: D

218) Five subtracted from a number

A) $x + 5$ B) $5 - x$ C) $5x$ D) $x - 5$

Answer: D

219) The quotient of a number and 19

A) $\frac{x}{19}$ B) $\frac{19}{x}$ C) $x - 19$ D) $19x$

Answer: A

220) The product of a number and 11

A) $\frac{x}{11}$ B) $11x$ C) $x - 11$ D) $x + 11$

Answer: B

221) The quotient of 3 and a number

A) $\frac{3}{x}$ B) $x - 3$ C) $\frac{x}{3}$ D) $3x$

Answer: A

222) Five times a number decreased by 22

A) $22 - 5x$ B) $5x + 22$ C) $5x - 22$ D) $22x - 5$

Answer: C

Write the sentence as an equation or inequality. Use x to represent any unknown number.

223) One increased by two equals the quotient of twenty–one and seven.

A) $1 + 2 = 21 \div 7$ B) $1 + 2 = 21 - 7$ C) $1 + 2 = 7 \div 21$ D) $1 + 2 = 21 \cdot 7$

Answer: A

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224) Two subtracted from eleven is equal to three squared.

A) $2 - 11 = 2 \cdot 3$ B) $11 - 2 = 3^2$ C) $2 - 11 = 3^2$ D) $11 - 2 = 2 \cdot 3$

Answer: B

225) Five is not equal to eight divided by two.

A) $5 \neq 8 \div 2$ B) $5 \div 2 \neq 8$ C) $5 \neq 8$ D) $5 = 8 \div 2$

Answer: A

226) The difference of thirteen and four is greater than six.

A) $4 - 13 > 6$ B) $13 - 4 < 6$ C) $13 - 4 > 6$ D) $4 - 13 < 6$

Answer: C

227) The sum of 14 and a number is 44.

A) $14 = 44 + x$ B) $14 + x = 44$ C) $14 - x = 44$ D) $44 + 14 = x$

Answer: B

228) Twice a number is 17.

A) $x + 2 = 17$ B) $x = 34$ C) $\frac{1}{2}x = 17$ D) $2x = 17$

Answer: D

229) Ten minus six times a number is 50.

A) $6 - 10x = 50$ B) $10 - 6x = 50$ C) $6x - 10 = 50$ D) $10x - 6 = 50$

Answer: B

230) Six subtracted from a number is 0.

A) $6x = 0$ B) $x + 6 = 0$ C) $x - 6 = 0$ D) $6 - x = 0$

Answer: C

231) The quotient of 10 and a number is $\frac{1}{4}$.

A) $\frac{1}{4}x = 10$ B) $10x = \frac{1}{4}$ C) $\frac{10}{x} = \frac{1}{4}$ D) $\frac{x}{10} = \frac{1}{4}$

Answer: C

232) The sum of 6 and twice a number is 48.

A) $48 + 2x = 6$ B) $6 + 2x = 48$ C) $6x - 2 = 48$ D) $6x + 2 = 48$

Answer: B

Add.

233) $32 + 23$

A) 9 B) 56 C) 54 D) 55

Answer: D

234) $12 + (-8)$

A) 4 B) 20 C) -20 D) -4

Answer: A

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235) $-22 + (-23)$

A) -1 B) 45 C) 1 D) -45

Answer: D

236) $-6 + 13$

A) -7 B) -19 C) 7 D) 19

Answer: C

237) $\frac{1}{3} + \left(-\frac{5}{6}\right)$

A) $-\frac{1}{2}$ B) $-\frac{7}{6}$ C) $\frac{7}{6}$ D) $\frac{1}{2}$

Answer: A

238) $\frac{3}{16} + \left(-\frac{3}{16}\right)$

A) $\frac{3}{4}$ B) $\frac{3}{8}$ C) $-\frac{3}{8}$ D) 0

Answer: D

239) $-\frac{2}{5} + \left(-\frac{2}{5}\right)$

A) 0 B) $-\frac{2}{5}$ C) $-\frac{6}{5}$ D) $-\frac{4}{5}$

Answer: D

240) $-17.0 + (-12.0)$

A) -5 B) 5 C) 29 D) -29

Answer: D

241) $-8.1 + (-2.3)$

A) 5.8 B) -5.8 C) 10.4 D) -10.4

Answer: D

242) $5.1 + (-9.9)$

A) -4.8 B) -15 C) 15 D) 4.8

Answer: A

243) $-|1| + |3|$

A) 4 B) -2 C) -4 D) 2

Answer: D

244) $|-1| + 48$

A) -49 B) -47 C) 49 D) 47

Answer: C

245) $|7 + (-14)|$

A) 7 B) -98 C) -7 D) 21

Answer: A

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246) $|34 + (-54)| + |-10|$

A) −58 B) 30 C) 0 D) 58

Answer: B

247) $[8 + (-1)] + [8 + (-9)]$

A) 6 B) 26 C) −10 D) 8

Answer: A

248) $-1.4 + [0.3 + (-0.8) + 0.2]$

A) 1.1 B) −0.1 C) −1.7 D) 2.9

Answer: C

Solve.

249) Lauren scored 13 points in her basketball game on Monday, 19 on Wednesday, 4 on Friday, and 5 on Saturday. Find her total points scored for the week.

A) 41 points B) 40 points C) 36 points D) 42 points

Answer: A

250) The Neighborhood Lemonade Stand, Inc. reported net incomes of −$462, −$127, and −$359 for the past three years. What was its total net income for these three years?

A) $948 B) −$589 C) −$948 D) −$486

Answer: C

251) On part of a scenic tour of underground caves, Dave and Neil started at an elevation of − 58 feet. They then rose 17 feet. What was their elevation at this point?

A) −41 ft B) −75 ft C) 41 ft D) 75 ft

Answer: A

252) At the start of a chemistry experiment, Sarah measured the temperature of a liquid to be −13°C. At the end of the experiment, it had risen 44°C. What was the liquid's temperature at the end of the experiment?

A) −31°C B) 31°C C) 57°C D) −57°C

Answer: B

253) In four rounds of a card game, you get scores of 3, −5, −6, and −1. What is your final score?

A) −9 B) 9 C) 15 D) −15

Answer: A

254) A bike road race starts at an elevation of 1,000 feet and passes through 5 stages where the elevation changes by 541 feet, −312 feet, 567 feet, 301 feet, and −91 feet. At what elevation does the race end?

A) 2,006 ft B) −2,812 ft C) 981 ft D) 2,812 ft

Answer: A

Find the additive inverse or opposite.

255) $|12|$

A) 12 B) $\frac{1}{12}$ C) 0 D) −12

Answer: D

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256) $|-26|$

A) 26 B) $-\frac{1}{26}$ C) 0 D) –26

Answer: D

257) 29

A) 29 B) $\frac{1}{29}$ C) 0 D) –29

Answer: D

258) –17

A) –17 B) 17 C) 0 D) $-\frac{1}{17}$

Answer: B

259) $\frac{4}{7}$

A) $-\frac{4}{7}$ B) $\frac{7}{4}$ C) $-\frac{7}{4}$ D) $\frac{4}{7}$

Answer: A

260) 0

A) 1 B) –1
C) 0 D) no additive inverse or opposite

Answer: C

Simplify.

261) $-|-7|$

A) 0 B) $-\frac{1}{7}$ C) –7 D) 7

Answer: C

262) – (–15)

A) 15 B) 1 C) –15 D) $\frac{1}{15}$

Answer: A

263) $-|-0|$

A) 1 B) 0 C) Undefined D) –1

Answer: B

264) $-\left|-\frac{1}{7}\right|$

A) $-\frac{1}{7}$ B) – 7 C) $\frac{1}{7}$ D) 0

Answer: A

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265) $-|27|$

A) 0 B) $-\frac{1}{27}$ C) −27 D) 27

Answer: C

Subtract.

266) 2 − 13

A) 15 B) −11 C) −15 D) 11

Answer: B

267) 17 − 17

A) 0 B) 1 C) 17 D) −17

Answer: A

268) −3 − 4

A) −1 B) 1 C) −7 D) 7

Answer: C

269) −13 − (−8)

A) −5 B) −21 C) 5 D) 21

Answer: A

270) 15 − (−6)

A) 9 B) 21 C) −21 D) −9

Answer: B

271) −13 − (−13)

A) 1 B) −13 C) 0 D) 13

Answer: C

272) 0.81 − (−0.54)

A) 0.4374 B) 1.45 C) 1.35 D) 0.27

Answer: C

273) −2.0 − (−1.1)

A) 3.1 B) −0.9 C) −3.1 D) 0.9

Answer: B

274) $\frac{6}{7} - \frac{4}{8}$

A) $\frac{2}{7}$ B) $\frac{20}{7}$ C) $\frac{1}{28}$ D) $\frac{5}{14}$

Answer: D

275) $-\frac{3}{4} - \frac{5}{8}$

A) $-\frac{1}{4}$ B) $\frac{11}{8}$ C) -1 D) $-\frac{11}{8}$

Answer: D

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276) $-\frac{4}{5}-\left(-\frac{7}{10}\right)$

A) $-\frac{3}{10}$ B) $-\frac{11}{10}$ C) $\frac{1}{10}$ D) $-\frac{1}{10}$

Answer: D

277) $\frac{1}{4}-\left(-\frac{1}{8}\right)$

A) $\frac{3}{8}$ B) $\frac{3}{64}$ C) $-\frac{3}{8}$ D) $-\frac{3}{16}$

Answer: A

278) $\frac{1}{4}-\left(\frac{1}{16}\right)$

A) $\frac{3}{16}$ B) $\frac{1}{32}$ C) $-\frac{3}{16}$ D) $\frac{1}{128}$

Answer: A

Simplify the expression. (Remember the order of operations.)

279) $-10+16-15$

A) -11 B) -9 C) 21 D) 9

Answer: B

280) $2-(-14)+(-6)$

A) 10 B) 6 C) -18 D) -6

Answer: A

281) $-9+3-6$

A) -6 B) 0 C) 12 D) -12

Answer: D

282) $-3+(-10)-(-6)$

A) -19 B) -7 C) 1 D) 7

Answer: B

283) $2-(-8)+(-6)$

A) -12 B) -4 C) 4 D) 0

Answer: C

284) $22-(-7)+16+(-12)$

A) -1 B) -43 C) 43 D) 33

Answer: D

285) $-6+16-13+(-11)$

A) 8 B) 12 C) -20 D) -14

Answer: D

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286) $-12 + 1 - (-8) - 12$

A) -15 B) -9 C) -7 D) 9

Answer: A

287) $-16 + 12 - (-5) - 10 + (-18)$

A) -5 B) -17 C) -7 D) -27

Answer: D

288) $19 - 0 - 7 - (-18) + (-15)$

A) -21 B) -7 C) 15 D) 23

Answer: C

289) $(5 + 6) - [(-18) - (-9)]$

A) 20 B) 8 C) -16 D) -2

Answer: A

290) $[17 - (-13)] - [19 + (-19)]$

A) 8 B) 30 C) -42 D) 42

Answer: B

291) $(5 - 4)(5 + 2) - 7^4$

A) $-2{,}394$ B) 7 C) 2,408 D) 2,401

Answer: A

292) $|-5| - 5^2 - (-3 - 3)$

A) -24 B) -14 C) -26 D) -20

Answer: B

Evaluate the expression when x = 5, y = –2, and t = 8.

293) $y + t$

A) -6 B) 10 C) 6 D) -10

Answer: C

294) $3x - 2t + |y|$

A) 16 B) 33 C) 1 D) -3

Answer: C

295) $|x + t - 5y|$

A) 2 B) 3 C) 37 D) 23

Answer: D

296) $\frac{19 - x}{y + 6}$

A) 3 B) $\frac{7}{2}$ C) $\frac{11}{4}$ D) 0

Answer: B

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297) $t^2 - 3y$

A) 10 B) 58 C) 22 D) 70

Answer: D

298) $\frac{|x + 15|}{4t}$

A) $\frac{75}{32}$ B) $\frac{5}{16}$ C) $-\frac{23}{8}$ D) $\frac{5}{8}$

Answer: D

Decide whether the given number is a solution of the given equation.

299) Is –5 a solution of $x - 9 = 4$?

A) yes B) no

Answer: B

300) Is 7 a solution of $-x - 1 = -8$?

A) yes B) no

Answer: A

301) Is –9 a solution to $-3 = 2 - x$?

A) yes B) no

Answer: B

302) Is –4 a solution of $-x - 5 = -x - 1$?

A) yes B) no

Answer: B

303) Is –7 a solution of $-2 - x = 5$?

A) yes B) no

Answer: A

Solve.

304) The price of a stock rose 6 points, fell 11 points, and again fell 10 points. What was the stock's total change?

A) –27 points B) –15 points C) 27 points D) 5 points

Answer: B

305) Sean has $229 in his savings account. After he withdraws $44, what will his balance be?

A) –$273 B) $273 C) –$185 D) $185

Answer: D

306) Mariel the Magician died in the year 16 A.D. at the age of 61. In what year was she born?

A) 77 A.D. B) 45 A.D. C) 77 B.C. D) 45 B.C.

Answer: D

307) Trader Tower stands at 1,738 feet high. Exchange Emporium is 888 feet tall. How much taller is Trader Tower than Exchange Emporium?

A) –2,626 feet B) 850 feet C) 2,626 feet D) –850 feet

Answer: B

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308) In a game of cards, Lindsey won 13 chips, lost 6 chips, won 7 chips, and lost 5 chips. What was her final count of chips?

A) –5 chips B) 9 chips C) 31 chips D) 19 chips

Answer: B

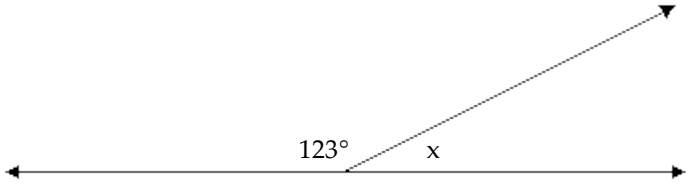
309) The temperature at 5:00 was –7° C. Four hours later, it was –11° C. What was the change in temperature?

A) –18° C B) 4° C C) 18° C D) –4° C

Answer: D

Find the unknown complementary or supplementary angle.

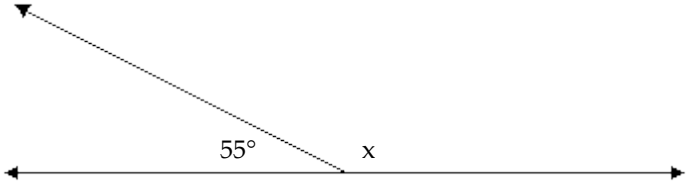
310)



A) 67° B) 47° C) 57° D) 52°

Answer: C

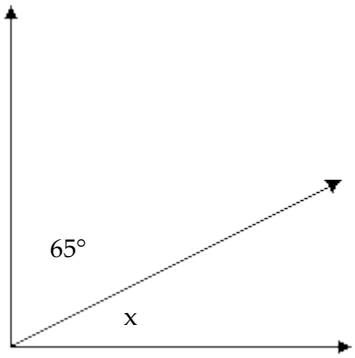
311)



A) 135° B) 120° C) 125° D) 115°

Answer: C

312)

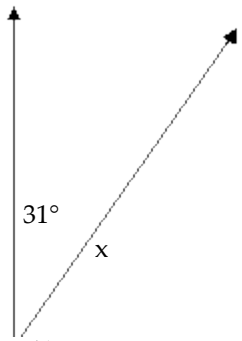


A) 35° B) 15° C) 25° D) 20°

Answer: C

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313)



A) 49° B) 59° C) 54° D) 69°

Answer: B

Translate the phrase to an expression and simplify.

314) Subtract –10 from 4.

A) 6 B) 14 C) –14 D) –6

Answer: B

315) Subtract 3 from –8.

A) 5 B) 11 C) –11 D) –5

Answer: C

316) Decrease 5 by 1.

A) 6 B) 4 C) –6 D) –4

Answer: B

317) Decrease –9 by –6.

A) 3 B) –15 C) –3 D) 15

Answer: C

Multiply.

318) 11(–11)

A) –132 B) –121 C) –221 D) –1,210

Answer: B

319) –2(12)

A) –24 B) –124 C) –36 D) –240

Answer: A

320) 3(–4)

A) –2 B) –12 C) 12 D) –24

Answer: B

321) $-9 \cdot 0$

A) –18 B) –9 C) 9 D) 0

Answer: D

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322) (–6)(–6)

A) –36 B) 42 C) 36 D) –42

Answer: C

323) $-\frac{45}{56}\left(\frac{8}{9}\right)$

A) $\frac{7}{9}$ B) $\frac{5}{7}$ C) $-\frac{5}{7}$ D) $-\frac{45}{56}$

Answer: C

324) $\frac{6}{5}\left(-\frac{13}{2}\right)$

A) 26 B) $-\frac{19}{10}$ C) $\frac{19}{3}$ D) $-\frac{39}{5}$

Answer: D

325) $-\frac{3}{14}\left(-\frac{3}{20}\right)$

A) $-\frac{3}{17}$ B) $\frac{9}{34}$ C) $-\frac{3}{140}$ D) $\frac{9}{280}$

Answer: D

326) –1.8(–19)

A) –20.8 B) –17.2 C) 20.8 D) 34.2

Answer: D

327) 1.5(–7.89)

A) 9.39 B) –11.835 C) –6.39 D) 9.49

Answer: B

328) (–4)(–3)(4)

A) 48 B) 38 C) 148 D) –48

Answer: A

329) (–6)(–10)(–4)

A) –140 B) –240 C) –250 D) 240

Answer: B

330) (–10)(–5)(0)(6)

A) –300 B) –30 C) 300 D) 0

Answer: D

331) (–4)(2)(–4)(–4)

A) –128 B) –10 C) 128 D) 32

Answer: A

332) (5)(5)(2)(–4)(–3)

A) 5 B) –600 C) –200 D) 600

Answer: D

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Perform the indicated operations.

333) (–4)(3) – (–14)(7)

A) 86 B) –86 C) 6 D) –110

Answer: A

334) (–8)(–1)(–9) – (–7)

A) –65 B) 65 C) –79 D) 79

Answer: A

Decide whether the statement is true or false.

335) The product of four negative integers is positive.

A) True B) False

Answer: A

336) The product of five negative integers is positive.

A) True B) False

Answer: B

337) The product of a positive integer and three negative integers is negative.

A) True B) False

Answer: A

338) The product of a negative integer and three positive integers is positive.

A) True B) False

Answer: B

Evaluate.

339) $(-7)^2$

A) –49 B) –14 C) 49 D) 14

Answer: C

340) -7^2

A) –14 B) –49 C) 49 D) 14

Answer: B

341) $(-5)^3$

A) 15 B) –125 C) 125 D) –15

Answer: B

342) $(-7)^4$

A) –28 B) –2,401 C) 2,401 D) 343

Answer: C

343) -1^4

A) 0 B) –4 C) 1 D) –1

Answer: D

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344) $(-1)^5$

A) 1 B) 5 C) –5 D) –1

Answer: D

Find the reciprocal or multiplicative inverse.

345) 19

A) 1 B) –19 C) $\frac{1}{19}$ D) $-\frac{1}{19}$

Answer: C

346) –3

A) 3 B) $\frac{1}{3}$ C) $-\frac{1}{3}$ D) 0

Answer: C

347) –100

A) $-\frac{1}{100}$ B) 100 C) $\frac{1}{100}$ D) –1

Answer: A

348) $\frac{1}{8}$

A) –8 B) 8 C) $-\frac{1}{8}$ D) 1

Answer: B

349) $\frac{3}{7}$

A) 7 B) $\frac{7}{3}$ C) $-\frac{3}{7}$ D) $-\frac{7}{3}$

Answer: B

350) $-\frac{6}{7}$

A) $-\frac{7}{6}$ B) $\frac{7}{6}$ C) 7 D) $-\frac{6}{7}$

Answer: A

351) $\frac{1}{4.7}$

A) 4.7 B) no reciprocal C) $-\frac{1}{4.7}$ D) –4.7

Answer: A

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352) $\frac{1}{-0.5}$

A) −0.5 B) no reciprocal C) $\frac{1}{0.5}$ D) 0.5

Answer: A

Divide.

353) $\frac{-32}{-8}$

A) −4 B) 5 C) 4 D) 3

Answer: C

354) $-\frac{12}{2}$

A) −6 B) 6 C) −7 D) −5

Answer: A

355) $\frac{-96}{8}$

A) −12 B) −22 C) $-\frac{1}{12}$ D) 12

Answer: A

356) $-\frac{24}{4}$

A) 6 B) −7 C) −5 D) −6

Answer: D

357) $\frac{52}{-2}$

A) −26 B) 26 C) $-\frac{1}{26}$ D) −36

Answer: A

358) $\frac{-168}{-7}$

A) $\frac{1}{24}$ B) −24 C) 14 D) 24

Answer: D

359) $\frac{-13}{0}$

A) undefined B) 0 C) 1 D) 13

Answer: A

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360) $\frac{0}{-20}$

A) undefined B) 20 C) 0 D) 1

Answer: C

361) $-\frac{2}{3} \div \left(-\frac{5}{6}\right)$

A) $\frac{5}{4}$ B) $-\frac{4}{5}$ C) $\frac{4}{5}$ D) $-\frac{5}{9}$

Answer: C

362) $\frac{7}{12} \div \left(-\frac{6}{13}\right)$

A) $-\frac{91}{72}$ B) $\frac{91}{72}$ C) $-\frac{7}{26}$ D) $\frac{72}{91}$

Answer: A

363) $-\frac{1}{5} \div \frac{7}{3}$

A) $\frac{3}{35}$ B) $-\frac{3}{35}$ C) $-\frac{7}{15}$ D) $\frac{7}{15}$

Answer: B

364) $-\frac{1}{4} \div \frac{1}{4}$

A) 4 B) –4 C) –1 D) $-\frac{1}{4}$

Answer: C

365) $\frac{5}{8} \div \left(-\frac{5}{8}\right)$

A) –1 B) 8 C) $-\frac{8}{5}$ D) $-\frac{5}{8}$

Answer: A

Simplify.

366) $\frac{-44}{5+6}$

A) 4 B) 11 C) $\frac{-44}{5-6}$ D) –4

Answer: D

367) $\frac{6+7}{-5-4}$

A) – 1 B) $-\frac{13}{9}$ C) 13 D) $-\frac{1}{9}$

Answer: B

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368) $\frac{1-3}{3-1}$

A) $-\frac{1}{3}$ B) –2 C) $\frac{1}{3}$ D) –1

Answer: D

369) $\frac{173+7}{3^2-4}$

A) 90 B) 54 C) 34 D) 36

Answer: D

370) $\frac{4(7)+6}{1-8(5)}$

A) $\frac{34}{39}$ B) $-\frac{4}{3}$ C) $-\frac{34}{35}$ D) $-\frac{34}{39}$

Answer: D

371) $\frac{\left|8-4^3\right|-6}{-6-8}$

A) $\frac{31}{7}$ B) $-\frac{29}{7}$ C) $-\frac{31}{7}$ D) $-\frac{25}{7}$

Answer: D

372) $\frac{|6(-3)|-|1-6|}{|11(5)|}$

A) $-\frac{23}{55}$ B) $\frac{23}{55}$ C) $-\frac{13}{55}$ D) $\frac{13}{55}$

Answer: D

If x = –4 and y = –2, evaluate the expression.

373) 5x + 2y

A) –24 B) –16 C) –18 D) 0

Answer: A

374) $x^3 + 3y$

A) –76 B) –18 C) –70 D) –12

Answer: C

375) $\frac{8-4x}{y+2}$

A) 2 B) 0 C) – 6 D) undefined

Answer: D

Decide whether the given number is a solution of the given equation.

376) Is –6 a solution of 4x = –24?

A) yes B) no

Answer: A

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377) Is 24 a solution of $\frac{x}{4} = -6$?

A) yes B) no

Answer: B

378) Is –8 a solution of $\frac{24}{x} = -3$?

A) no B) yes

Answer: B

379) Is 3 a solution of $-5x + 4 = -11$?

A) yes B) no

Answer: A

380) Is 7 a solution of $-4x - 6 = x + 4$?

A) yes B) no

Answer: B

Solve.

381) At the end of last year, Widgets Unlimited, Inc. posted a net income of –$239.6 billion. If this continues, what would its income be after three years?

A) –$718.8 billion B) –$242.6 billion C) $718.8 billion D) –$7,188 billion

Answer: A

382) Chris lost $5.49 playing poker in one week. If this continued, what would be his net winnings or losses after five weeks?

A) $27.45 B) –$274.50 C) –$2,745.00 D) –$27.45

Answer: D

Use a commutative property to complete the statement.

383) $3 + x =$ _____

A) $3 - x$ B) $x - 3$ C) $x + 3$ D) $-x - 3$

Answer: C

384) $-7 \cdot x =$ _____

A) $7 \cdot x$ B) $x - (7)$ C) $7 - x$ D) $x \cdot (-7)$

Answer: D

385) $rs =$ _____

A) $r + s$ B) $\frac{1}{rs}$ C) sr D) $-rs$

Answer: C

386) $6x + 14 =$ _____

A) $14x + 6$ B) $-6x + 14$ C) $6x - 14$ D) $14 + 6x$

Answer: D

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Use an associative property to complete the statement.

387) $(8x + 6y) + 4z =$ _____

A) $(8x + 6y + 4z)$ B) $(6y + 8x) + 4z$ C) $8x + (6y + 4z)$ D) $8x + 6y + 4z$

Answer: C

388) $8 \cdot (yz) =$ _____

A) $8 + (yz)$ B) $(yz) \cdot 8$ C) $(8y) \cdot z$ D) $8 \cdot (zy)$

Answer: C

389) $(-9r) \cdot s =$ _____

A) $9 \cdot (-rs)$ B) $(rs) \cdot (-9)$ C) $-9 \cdot (rs)$ D) $s \cdot (-9r)$

Answer: C

390) $6y + (5x + 2) =$ _____

A) $(12y + 5x) + 2$ B) $(6y + 2) + 5x$ C) $8x + 42$ D) $(6y + 5x) + 2$

Answer: D

Use the commutative and associative properties to simplify the expression.

391) $3 + (3x + 2)$

A) $6 + 3x$ B) $15x$ C) $5 + 3x$ D) $5x + 2$

Answer: C

392) $(4 + 5x) - 6$

A) $-2 + 5x$ B) $-24 + 5x$ C) $-4x$ D) $-2x - 6$

Answer: A

393) $\frac{5}{3}(12y)$

A) $-8y$ B) $-20y$ C) $15y$ D) $20y$

Answer: D

394) $-2(8y)$

A) $16y$ B) $6y$ C) $-16 + y$ D) $-16y$

Answer: D

395) $\frac{7}{2}\left(\frac{2}{7}t\right)$

A) t B) $\frac{2}{7}t$ C) $\frac{49}{4}t$ D) $\frac{53}{14}t$

Answer: A

Name the property illustrated by the statement.

396) $(9 + 8) + 2 = (8 + 9) + 2$

A) distributive property B) additive inverse property

C) commutative property of addition D) associative property of addition

Answer: C

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397) $5 + 2 = 2 + 5$

A) identity element for addition
B) distributive property
C) commutative property of addition
D) associative property of addition

Answer: C

398) $(2 \cdot 1) \cdot 1 = 2 \cdot (1 \cdot 1)$

A) identity element for multiplication
B) distributive property
C) associative property of multiplication
D) commutative property of multiplication

Answer: C

399) $6 \cdot 9 = 9 \cdot 6$

A) identity element for multiplication
B) commutative property of multiplication
C) associative property of multiplication
D) distributive property

Answer: B

400) $6 + (15 + 7) = (6 + 15) + 7$

A) commutative property of addition
B) distributive property
C) associative property of addition
D) identity element for addition

Answer: C

Use the distributive property to write the expression without parentheses. Then simplify, if necessary.

401) $-6(x + y)$

A) $-6x + 6y$
B) $-6x + y$
C) $-6xy$
D) $-6x - 6y$

Answer: D

402) $5(x + 2)$

A) $5x + 10$
B) $x + 10$
C) $5x + 7$
D) $5x + 2$

Answer: A

403) $5(x - 4)$

A) $5x - 4$
B) $5x + 20$
C) $5x - 9$
D) $5x - 20$

Answer: D

404) $5(6x + 10)$

A) $11x + 15$
B) $80x$
C) $30x + 50$
D) $30x + 10$

Answer: C

405) $4(10x - 8)$

A) $40x - 8$
B) $14x - 12$
C) $40x - 32$
D) $72x$

Answer: C

406) $3(3 - 6y)$

A) $6 - 9y$
B) $9 - 6y$
C) $27y$
D) $9 - 18y$

Answer: D

407) $-3(x + 8)$

A) $x - 24$
B) $-3x - 24$
C) $-3x + 8$
D) $-3x + 24$

Answer: B

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408) $\frac{1}{5}(15x - 10)$

A) $3x - 2$ B) x C) $3x - 10$ D) $75x - 50$

Answer: A

409) $-2(4x + 8)$

A) $-8x + 16$ B) $-24x$ C) $8x + 16$ D) $-8x - 16$

Answer: D

410) $-(t - 2y)$

A) $t - 2y$ B) $t + 2y$ C) $-t - 2y$ D) $-t + 2y$

Answer: D

411) $4(4n + 6)$

A) $8n + 10$ B) $16n + 24$ C) $16n + 6$ D) $40n$

Answer: B

412) $\frac{1}{3}(9x - 6)$

A) $27x - 18$ B) $3x - 6$ C) $3x - 2$ D) x

Answer: C

413) $-(-5m + 5n - 5p)$

A) $-5m + 5n + 5p$ B) $-5m + 5n - 5p$ C) $5m - 5n + 5p$ D) $5m - 5n - 5p$

Answer: C

414) $4(5r + 9 + 9s)$

A) $20r + 36 + 9s$ B) $20r + 9 + 36s$ C) $20r + 9 + 9s$ D) $20r + 36 + 36s$

Answer: D

415) $3(4x + 9 + y)$

A) $12x + 9 + 3y$ B) $12x + 9 + y$ C) $12x + 27 + 3y$ D) $12x + 27 + y$

Answer: C

416) $8(x + 3y + 9)$

A) $8x - 24y - 72$ B) $8x + 3y + 9$ C) $8x + 24y + 9$ D) $8x + 24y + 72$

Answer: D

417) $6x - 2(5y - 9)$

A) $6x - 10y + 18$ B) $6x - 10y - 18$ C) $6x - 10y - 9$ D) $6x - 10y + 9$

Answer: A

418) $12(4z + 3) - 2$

A) $48z + 34$ B) $48z + 12$ C) $16z + 13$ D) $48z + 1$

Answer: A

419) $7(5x + 4) - 3$

A) $35x + 7$ B) $35x + 25$ C) $35x + 1$ D) $12x + 8$

Answer: B

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420) $14 + 6(4x - 1)$

A) $24x - 8$ B) $4x + 8$ C) $24x + 8$ D) $24x + 13$

Answer: C

Use the distributive property to write the sum as a product.

421) $20 \cdot 1 + 20 \cdot z$

A) $(20 + 20z)$ B) $21(z)$ C) $(20z)$ D) $20(1 + z)$

Answer: D

422) $20 \cdot y + 20 \cdot 4$

A) $(80y)$ B) $(20y + 80)$ C) $20(y + 4)$ D) $(24y)$

Answer: C

423) $(-1) \cdot 7 + (-1) \cdot b$

A) $-1(7 - b)$ B) $-1(7 + b)$ C) $-1(7b)$ D) $1(7 + b)$

Answer: B

424) $(-7)b + (-7)t$

A) $-7(b - t)$ B) $-7(b + t)$ C) $7(b - t)$ D) $7(b + t)$

Answer: B

425) $(4)a + (4)s$

A) $4(a + s)$ B) $4(a \cdot s)$ C) $4(a - s)$ D) $8(a + s)$

Answer: A

Name the property illustrated by the statement.

426) $9(x + 7) = 9x + 9 \cdot 7$

A) commutative property of addition
B) distributive property
C) identity element for multiplication
D) associative property of addition

Answer: B

427) $5 \cdot 1 = 5$

A) identity element for multiplication
B) commutative property of multiplication
C) distributive property
D) multiplicative inverse property

Answer: A

428) $7 + 0 = 7$

A) distributive property
B) associative property of addition
C) identity element for addition
D) commutative property of addition

Answer: C

429) $7 + (-7) = 0$

A) additive inverse property
B) commutative property of addition
C) identity element for addition
D) associative property of addition

Answer: A

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430) $\frac{1}{2} \cdot 2 = 1$

A) identity element for multiplication
B) associative property of multiplication
C) distributive property
D) multiplicative inverse property

Answer: D

Find the opposite (additive inverse), and the reciprocal (multiplicative inverse). Assume that the value of an expression is not 0.

431) Expression: -3 Opposite: ____ Reciprocal: ____

A) Opposite: 3 Reciprocal: $\frac{1}{3}$
B) Opposite: 3 Reciprocal: $-\frac{1}{3}$
C) Opposite: $-\frac{1}{3}$ Reciprocal: 3
D) Opposite: $\frac{1}{3}$ Reciprocal: 3

Answer: B

432) Expression: $-\frac{3}{5}$ Opposite: ____ Reciprocal: ____

A) Opposite: $\frac{3}{5}$ Reciprocal: $\frac{5}{3}$
B) Opposite: $\frac{3}{5}$ Reciprocal: $-\frac{5}{3}$
C) Opposite: $\frac{5}{3}$ Reciprocal: $\frac{3}{5}$
D) Opposite: $-\frac{5}{3}$ Reciprocal: $\frac{3}{5}$

Answer: B

433) Expression: $-s$ Opposite: ____ Reciprocal: ____

A) Opposite: $-\frac{1}{s}$ Reciprocal: s
B) Opposite: $\frac{1}{s}$ Reciprocal: s
C) Opposite: s Reciprocal: $-\frac{1}{s}$
D) Opposite: s Reciprocal: $\frac{1}{s}$

Answer: C

434) Expression: $8x$ Opposite: ____ Reciprocal: ____

A) Opposite: $-8x$ Reciprocal: $\frac{1}{8x}$
B) Opposite: $-\frac{1}{8x}$ Reciprocal: $-8x$
C) Opposite: $-8x$ Reciprocal: $-\frac{1}{8x}$
D) Opposite: $\frac{1}{8x}$ Reciprocal: $-8x$

Answer: A

435) Expression: $-4y$ Opposite: ____ Reciprocal: ____

A) Opposite: $4y$ Reciprocal: $\frac{1}{4y}$
B) Opposite: $\frac{1}{4y}$ Reciprocal: $4y$
C) Opposite: $-\frac{1}{4y}$ Reciprocal: $4y$
D) Opposite: $4y$ Reciprocal: $-\frac{1}{4y}$

Answer: D

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Fill in the blank with one of the words or phrases listed below.

set	**inequality symbols**	**opposites**	**absolute value**	**numerator**
denominator	**grouping symbols**	**exponent**	**base**	**reciprocals**
variable	**equation**	**solution**		

436) The symbols ≠, <, and > are called _____.
A) opposites B) reciprocals C) grouping symbols D) inequality symbols
Answer: D

437) A mathematical statement that two expressions are equal is called a(n) _____.
A) inequality symbols B) absolute value C) exponent D) equation
Answer: D

438) The _____ of a number is the distance between that number an 0 on the number line.
A) base B) absolute value C) solution D) exponent
Answer: B

439) A symbol used to represent a number is called a _____.
A) variable B) base C) denominator D) numerator
Answer: A

440) Two numbers that are the same distance from 0 but lie on opposite sides of 0 are called _____.
A) inequality symbols B) reciprocals C) grouping symbols D) opposites
Answer: D

441) The number in a fraction above the fraction bar is called the _____.
A) denominator B) base C) numerator D) exponent
Answer: C

442) A _____ of an equation is a value for the variable that makes the equation a true statement.
A) set B) base C) solution D) variable
Answer: C

443) Two numbers whose product is 1 are called _____.
A) opposites B) inequality symbols C) reciprocals D) grouping symbols
Answer: C

444) In 2^3, the 2 is called the _____ and the 3 is called the _____.
A) exponent, base B) denominator, numerator
C) numerator, denominator D) base, exponent
Answer: D

445) The number in a fraction below the fraction bar is called the _____.
A) base B) exponent C) numerator D) denominator
Answer: D

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446) Parentheses and brackets are examples of _____.

A) reciprocals B) opposites C) grouping symbols D) inequality symbols

Answer: C

447) A _____ is a collection of objects

A) set B) variable C) base D) solution

Answer: A

Translate the statement into symbols.

448) The absolute value of negative nine is greater than three.

A) $|9| > 3$ B) $|-9| > 3$ C) $|-3| > 9$ D) $-|9| > 3$

Answer: B

449) The sum of eight and nine is greater than or equal to three.

A) $8 + 9 > 3$ B) $8 + 8 \leq 3$ C) $8 + 9 = 3$ D) $8 + 9 \geq 3$

Answer: D

Simplify the expression.

450) $-9 + 15$

A) 24 B) −6 C) 6 D) −24

Answer: C

451) $-9 - (-7)$

A) −2 B) −16 C) 16 D) 2

Answer: A

452) $10 \div 5 \cdot 2 - 7 \cdot 6$

A) −18 B) −38 C) −36 D) −41

Answer: B

453) $(5)(-4)$

A) −120 B) −20 C) −25 D) −200

Answer: B

454) $(-3)(-9)$

A) 37 B) 54 C) 27 D) −27

Answer: C

455) $\dfrac{|-10|}{-5}$

A) 2 B) −2 C) −1 D) −3

Answer: B

456) $\dfrac{-96}{0}$

A) undefined B) 0 C) 96 D) 1

Answer: A

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457) $\frac{|-3|+1}{9-3}$

A) $-\frac{2}{3}$ B) $\frac{2}{3}$ C) $\frac{1}{9}$ D) $-\frac{1}{3}$

Answer: B

458) $\frac{1}{4}-\frac{5}{8}$

A) $-\frac{3}{4}$ B) $-\frac{3}{8}$ C) $-\frac{1}{2}$ D) $\frac{7}{8}$

Answer: B

459) $-2\frac{11}{21}+7\frac{2}{7}$

A) $-2\frac{5}{21}$ B) $5\frac{17}{21}$ C) $8\frac{16}{21}$ D) $4\frac{16}{21}$

Answer: D

460) $-9.4+5.7$

A) -15.1 B) -3.7 C) 3.7 D) 15.1

Answer: B

461) $2(-3)^2-30$

A) -36 B) -48 C) -12 D) 12

Answer: C

462) $4[-8+4(-2+8)]$

A) -8 B) -100 C) 64 D) -96

Answer: C

463) $\frac{-8+3\cdot 12}{4}$

A) -7 B) -15 C) 11 D) 7

Answer: D

464) $\frac{(-3)(0)(-6)}{-8}$

A) undefined B) 0 C) $-\frac{9}{4}$ D) $\frac{9}{8}$

Answer: B

Insert <, >, or = to make the statement true.

465) -2 _____ -4

A) < B) = C) >

Answer: C

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466) -3 _____ 3

A) $<$ B) $=$ C) $>$

Answer: A

467) $|-7|$ _____ 3

A) $=$ B) $<$ C) $>$

Answer: C

468) $|-2|$ _____ $-3-(-5)$

A) $<$ B) $=$ C) $>$

Answer: B

Provide an appropriate response.

469) As part of a fund raiser, Maria sold 267 candy bars. Drew sold 135 candy bars. Write an inequality statement using $<$ or $>$ comparing the numbers 267 and 135.

A) $267 < 135$ B) $267 > 135$

Answer: B

List the numbers in set B that belong to the indicated set.

470) $B = \left\{3, \sqrt{6}, -9, 0, \frac{0}{25}, 2\pi, \sqrt{25}\right\}$

Natural numbers

A) $3, 0, \frac{0}{6}$ B) $3, 0, \sqrt{25}$ C) $3, 0$ D) $3, \sqrt{25}$

Answer: D

471) $B = \left\{2, \sqrt{6}, -9, 0, \frac{0}{6}, 2\pi, \sqrt{4}\right\}$

Whole numbers

A) $2, 0, \frac{0}{6}, \sqrt{4}$ B) $2, -9, 0$ C) $2, 0$ D) $2, -9, 0, \sqrt{4}, 2\pi$

Answer: A

472) $B = \left\{16, \sqrt{6}, -6, 0, \frac{0}{5}, 2\pi, \sqrt{9}\right\}$

Integers

A) $16, 0, \sqrt{9}, 2\pi$ B) $16, 0$ C) $16, -6, 0$ D) $16, -6, 0, \frac{0}{5}, \sqrt{9}$

Answer: D

473) $B = \left\{17, \sqrt{5}, -23, 0, \frac{0}{5}, \sqrt{25}, \frac{-4}{0}, 2\pi, 0.65\right\}$

Rational numbers

A) $17, 0, \sqrt{25}, 2\pi$ B) $17, -23, 0, \frac{0}{5}, \sqrt{25}, 0.65$

C) $\sqrt{5}, \frac{0}{5}, 0.65$ D) $\sqrt{5}, \sqrt{25}$

Answer: B

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474) $B = \left\{4, \sqrt{5}, -17, 0, \frac{0}{6}, \sqrt{16}, \frac{-6}{0}, 2\pi, 0.43\right\}$

Irrational numbers

A) $\sqrt{5}, \frac{-6}{0}, 2\pi$ B) $\sqrt{5}, \sqrt{16}, 0.43, 2\pi$ C) $\sqrt{5}, \sqrt{16}$ D) $\sqrt{5}, 2\pi$

Answer: D

475) $B = \left\{6, \sqrt{8}, -24, 0, \frac{0}{8}, \sqrt{16}, 2\pi, \frac{-3}{0}\right\}$

Real numbers

A) $6, -24, 0, \sqrt{16}$ B) $6, -24, 0, \frac{0}{8}, \frac{-3}{0}$

C) $6, -24, 0, \frac{0}{8}, \sqrt{16}, 2\pi$ D) $6, \sqrt{8}, -24, 0, \frac{0}{8}, \sqrt{16}, 2\pi$

Answer: D

Evaluate the expression for the given replacement values.

476) $x^2 + y^2$ $x = 2, y = -6$

A) 40 B) 24 C) 16 D) 144

Answer: A

477) $x + yz$ $x = 6, y = -3, z = -6$

A) 24 B) –18 C) –12 D) 12

Answer: A

478) $8 + 7x - y$ $x = 3, y = -2$

A) 31 B) 17 C) 47 D) 43

Answer: A

479) $\frac{y + z - 1}{x}$ $x = 6, y = -9, z = 16$

A) $-\frac{8}{3}$ B) –1 C) 1 D) $\frac{8}{3}$

Answer: C

Identify the property illustrated by the expression.

480) $8 + (2 + 14) = (8 + 2) + 14$

A) identity element for addition B) commutative property of addition

C) associative property of addition D) distributive property

Answer: C

481) $7 \cdot 9 = 9 \cdot 7$

A) commutative property of multiplication B) associative property of multiplication

C) identity element for multiplication D) distributive property

Answer: A

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482) $-5(2 + 9) = -5 \cdot 2 + (-5) \cdot 9$

A) commutative property of multiplication
B) associative property of addition
C) distributive property
D) associative property of multiplication

Answer: C

483) $\frac{1}{5}(5) = 1$

A) distributive property
B) identity element for multiplication
C) associative property of multiplication
D) multiplicative inverse property

Answer: D

Provide an appropriate response.

484) Find the opposite of –11.

A) 11 B) $-\frac{1}{11}$ C) 0 D) –11

Answer: A

485) Find the reciprocal of $-\frac{1}{7}$.

A) 1 B) $\frac{1}{7}$ C) 7 D) –7

Answer: D

Solve the problem.

486) An NFL football team was 36 yards from the goal when the following series of gains and losses occurred.

	Gains and Losses in Yards
First Down	10
Second Down	–8
Third Down	–17
Fourth Down	14

During which down did the greatest gain of yardage occur?

A) third down B) first down C) second down D) fourth down

Answer: D

487) An NFL football team was 33 yards from the goal when the following series of gains and losses occurred.

	Gains and Losses in Yards
First Down	12
Second Down	–5
Third Down	–6
Fourth Down	17

Was a touchdown scored?

A) Yes B) No

Answer: B

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488) The temperature at a mountain resort was a frigid 12 degrees below zero in the morning, but by noon it had risen 35 degrees. What was the temperature at noon?

A) 47° B) –47° C) –23° D) 23°

Answer: D

489) Allied Health Provider is a health insurance provider. In three consecutive recent years, it had net incomes of $344 million, $451 million, and –$191 million. What was Allied Health Provider's total net income for these three years?

A) $986 million B) $795 million C) $298 million D) $604 million

Answer: D

490) Noah Field decided to sell 340 shares of stock, which decreased in value by $3.50 per share yesterday. How much money did he lose?

A) $1,190 B) $336.50 C) $2,380 D) $5,950

Answer: A

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

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

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

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

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

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

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

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

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401) D
402) A
403) D
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421) D
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428) C
429) A
430) D
431) B
432) B
433) C
434) A
435) D
436) D
437) D
438) B
439) A
440) D
441) C
442) C
443) C
444) D
445) D
446) C
447) A
448) B
449) D
450) C

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451) A
452) B
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454) C
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459) D
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462) C
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467) C
468) B
469) B
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472) D
473) B
474) D
475) D
476) A
477) A
478) A
479) C
480) C
481) A
482) C
483) D
484) A
485) D
486) D
487) B
488) D
489) D
490) A

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