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

Replace the ? with the inequality symbol < or >.

1) −8 ? 3
A) −8 > 3 B) −8 < 3
Answer: B

2) 58 ? −73
A) 58 > −73 B) 58 < −73
Answer: A

3) −77 ? −29
A) −77 > −29 B) −77 < −29
Answer: B

Represent the quantity with an integer.

4) 278 feet below sea level
A) +278 B) −278
Answer: B

5) 51° above zero
A) +51 B) −51
Answer: A

6) $246 loss
A) −246 B) +246
Answer: A

7) 50−pound loss
A) −50 B) +50
Answer: A

8) losing 56 cents
A) +56 B) −56
Answer: B

9) $2829 out of debt
A) −2829 B) +2829
Answer: B

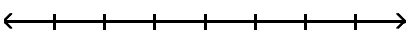
10) The team gave up 16 points.
A) +16 B) −16
Answer: B

11) a deposit of $257.50 in your checkbook
A) +257.5 B) −257.5
Answer: A

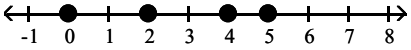
12) a climb of 124 feet down into a subterranean cave
A) −124 B) +124
Answer: A

Graph the numbers on the number line.

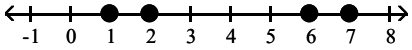
13) 0, 2, 4, 6



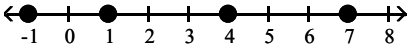
A)



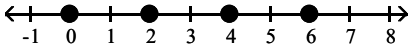
B)



C)

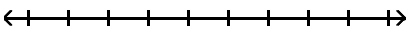


D)

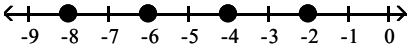


Answer: D

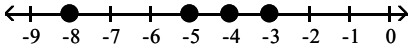
14) –8, –6, –4, –2



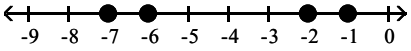
A)



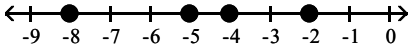
B)



C)



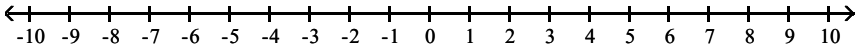
D)



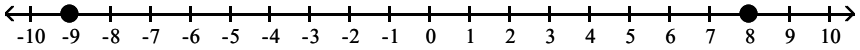
Answer: A

Answer the question.

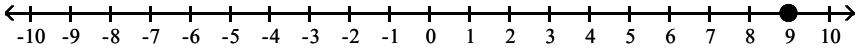
15) Label –9 and the opposite of –9 on the number line.



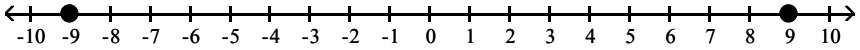
A)



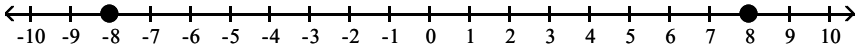
B)



C)



D)



Answer: C

Fill in the blank.

16) The opposite of 14 = ____.

A) –14 B) 0 C) $-\frac{1}{14}$ D) 14

Answer: A

17) The opposite of –24 = ____.

A) 0 B) 24 C) $\frac{1}{24}$ D) –24

Answer: B

18) The opposite of –(–28) = ____.

A) 0 B) –28 C) $-\frac{1}{28}$ D) 28

Answer: B

Simplify.

19) –(–9)

A) –9 B) –10 C) 10 D) 9

Answer: D

20) –(–(–3))

A) 4 B) –3 C) –4 D) 3

Answer: B

21) –(–(–(–9)))

A) –9 B) 10 C) –10 D) 9

Answer: D

Evaluate the following for the given value.

22) –(–x) for x = 13

A) 14 B) –13 C) 13 D) –14

Answer: C

Simplify.

23) –(–(–y)) for y = –9

A) –9 B) –10 C) 10 D) 9

Answer: D

24) –(–(–(–n))) for n = –6

A) 6 B) –6 C) 7 D) –7

Answer: B

Evaluate the absolute value.

25) |24|

A) 24 B) 0 C) –24 D) 48

Answer: A

26) $|-12|$

A) -12 B) 0 C) 12 D) 24

Answer: C

27) $|85|$

A) $\frac{1}{85}$ B) 85 C) -85 D) 0

Answer: B

Replace the ? with the inequality symbol <, >, or =.

28) $|10|$? $|-10|$

A) < B) > C) =

Answer: C

29) $|-30|$? $|25|$

A) < B) > C) =

Answer: B

30) $|-40|$? $|-33|$

A) < B) > C) =

Answer: B

31) $|-21|$? $|-9|$

A) < B) > C) =

Answer: B

Simplify.

32) $-|-6|$

A) -6 B) 0 C) $-\frac{1}{6}$ D) 6

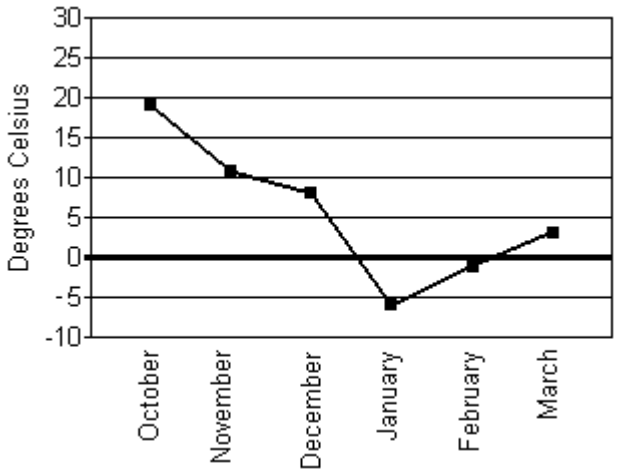
Answer: A

33) $-|13|$

A) 13 B) 0 C) $-\frac{1}{13}$ D) -13

Answer: D

The line graph indicates the lowest temperature recorded in a certain city for six consecutive months.



34) In which month was the temperature colder, January or February?
A) February B) January

Answer: B

35) Which months was the recorded low temperature a positive temperature?
A) October, November, December
B) November, December, March
C) October, November, December, March
D) October, November, December, February, March

Answer: C

36) Which month was the recorded low temperature the lowest?
A) February B) January C) October D) March

Answer: B

Add.

37) $-9 + (-4)$
A) 5 B) −13 C) −5 D) 13

Answer: B

38) $34 + 22$
A) 57 B) 55 C) 56 D) 12

Answer: C

39) $|-20| + 17$
A) 37 B) −3 C) −37 D) 3

Answer: A

40) $-15 + (-21)$
A) 6 B) 36 C) −6 D) −36

Answer: D

41) 18 + 38
A) 57 B) –20 C) 55 D) 56
Answer: D

42) –44 + (–29)
A) 15 B) 73 C) –15 D) –73
Answer: D

43) 2 + (–6)
A) 8 B) –8 C) 4 D) –4
Answer: D

44) –2 + 7
A) –9 B) 9 C) 5 D) –5
Answer: C

45) 97 + (–44)
A) –53 B) 53 C) –141 D) 141
Answer: B

46) –89 + 30
A) 59 B) –119 C) –59 D) 119
Answer: C

47) 82 + (–3)
A) –85 B) 85 C) –79 D) 79
Answer: D

48) 19 + (–83)
A) –102 B) 64 C) –64 D) 102
Answer: C

49) –1 + 0
A) –10 B) 0 C) –1 D) 1
Answer: C

50) –50 + 50
A) –50 B) 1 C) 0 D) 50
Answer: C

51) 16 + (–12) + (–1)
A) 5 B) 3 C) 29 D) 27
Answer: B

52) 15 + 21 + (–8)
A) 44 B) 28 C) 2 D) –14
Answer: B

53) –22 + 6 + (–20)
A) 8 B) –36 C) 48 D) 4
Answer: B

54) –12 + (–3) + (–19) + (–3)
A) 25 B) –13 C) –37 D) –7
Answer: C

55) 22 + (–3) + 14 + (–7)
A) –2 B) 26 C) 46 D) 12
Answer: B

56) –9 + (–7) + (–8) + (–15) + 13 + (–1)
A) –21 B) –53 C) –27 D) 7
Answer: C

57) 7 + (–2) + 17 + (–5) + 6 + (–8)
A) –19 B) –15 C) –45 D) 15
Answer: D

Evaluate.

58) Evaluate x + 2 for x = –6.
A) –12 B) –4 C) 8 D) –8
Answer: B

59) Evaluate x + (–2) for x = 7.
A) 9 B) –9 C) –4 D) 5
Answer: D

60) Evaluate –9 + x + y for x = –19 and y = 13.
A) 41 B) 15 C) –15 D) –23
Answer: C

61) Evaluate –x + y + 12 for x = 4 and y = –17.
A) 33 B) –25 C) 9 D) –9
Answer: D

62) Evaluate –a + b + (–5) for a = –20 and b = 10.
A) 25 B) –15 C) 35 D) 15
Answer: A

63) Evaluate –4 + x + y + 14 + z + (–8) for x = 13, y = –12, and z = 16.
A) 19 B) –9 C) –1 D) –67
Answer: A

Solve the problem.

64) The temperature at 2 p.m. was 10 degrees below zero. By 11 p.m. the temperature had dropped another 24 degrees. Represent this temperature as an integer.
A) 14° B) –34° C) 34° D) –14°
Answer: B

65) At the start of a chemistry experiment, Sarah measured the temperature of a liquid to be 12 degrees below zero. At the end of the experiment, it had risen 36 degrees. Represent this temperature as an integer.

A) –48° B) 24° C) –24° D) 48°

Answer: B

66) A deep–sea diver dives from the surface to 42 feet below the surface. She then dives down 14 more feet. Represent this distance below the surface as an integer.

A) –26 ft B) –56 ft C) –28 ft D) –59 ft

Answer: B

67) A deep–sea diver dives from the surface to 236 meters below the surface and then swims up 9 meters, down 16 meters, down another 28 meters, and then up 21 meters. Represent this distance below the surface as an integer.

A) –194 m B) –250 m C) –162 m D) –268 m

Answer: B

68) On part of a scenic tour of underground caves, Dave and Neil started at an elevation of – 36 feet. They then rose 17 feet. What was their elevation at this point?

A) –19 ft. B) –53 ft. C) 53 ft. D) 19 ft.

Answer: A

69) The difference between a country's exports and imports is called the country's *trade balance.* If one country had a trade balance of –$87 billion one year, $116 billion the following year, and –$49 billion the third year, what was the total trade balance for these three years?

A) –252 billion dollars B) –20 billion dollars
C) 20 billion dollars D) 252 billion dollars

Answer: B

70) Scores in golf can be positive or negative integers. For example, a score of 5 *over* par can be represented by +5 and a score of 2 *under* par can be represented by –2. If Donna had scores of 4 over par, 7 under par, and 3 under par for three games of golf, what was her total score?

A) 6 over par B) 6 under par C) 14 under par D) 14 over par

Answer: B

71) Lauren scored 14 points in her basketball game on Monday, 18 on Wednesday, 7 on Friday, and 3 on Saturday. Find her total points scored for the week.

A) 39 points B) 41 points C) 42 points D) 43 points

Answer: C

72) The Neighborhood Lemonade Stand, Inc. reported net incomes of –$190, –$183, and –$132 for the past three years. What was its total net income for these three years?

A) –$505 B) –$373 C) $505 D) –$315

Answer: A

Subtract.

73) 4 – 12

A) 16 B) –8 C) 8 D) –16

Answer: B

74) –7 – 8
A) –1 B) –15 C) 15 D) 1
Answer: B

75) –12 – (–2)
A) –14 B) 10 C) –10 D) 14
Answer: C

76) 6 – (–3)
A) 9 B) –9 C) 3 D) –3
Answer: A

77) 10 – 10
A) –10 B) 1 C) 0 D) 10
Answer: C

78) 0 – 13
A) –(–13) B) 13 C) 0 D) –13
Answer: D

79) –10 – 10
A) –20 B) 20 C) 0 D) –10
Answer: A

80) –12 – (–12)
A) 12 B) –12 C) 0 D) 1
Answer: C

81) 0 – (–2)
A) 0 B) –2 C) 4 D) 2
Answer: D

82) 17 – (–17)
A) 17 B) 0 C) 34 D) –34
Answer: C

83) –210 – 450
A) –240 B) –660 C) 660 D) 240
Answer: B

84) –160 – (–23)
A) 137 B) –183 C) 183 D) –137
Answer: D

Evaluate.

85) x – 4 for x = –25
A) 29 B) –21 C) –29 D) 21
Answer: C

86) 5 – y for y = –29
A) 34 B) –34 C) 24 D) –24
Answer: A

87) –15 – x for x = –3
A) –12 B) –18 C) 18 D) 12
Answer: A

88) 14 – x – y for x = –14 and y = –2
A) –2 B) 30 C) 26 D) 2
Answer: B

89) –1 – x + y for x = –1 and y = –6
A) –8 B) –6 C) 4 D) 6
Answer: B

Perform the necessary operations.

90) –3 – 6 – 2
A) –11 B) 5 C) –7 D) 1
Answer: A

91) 5 – 4 – 11
A) –10 B) –2 C) 12 D) 20
Answer: A

92) –6 + 12 – 6
A) 0 B) –12 C) –24 D) 12
Answer: A

93) –8 – 18 + 12
A) 14 B) –2 C) –14 D) –38
Answer: C

94) –6 + 16 – 8
A) –14 B) 2 C) –2 D) –30
Answer: B

95) 10 – (–15) + 13 + (–10)
A) 18 B) 28 C) –2 D) –18
Answer: B

96) 2 + (–1) – (–7) + 1
A) –5 B) 7 C) 9 D) –3
Answer: C

97) –7 + 17 – 11 – (–17)
A) 16 B) 4 C) –18 D) –30
Answer: A

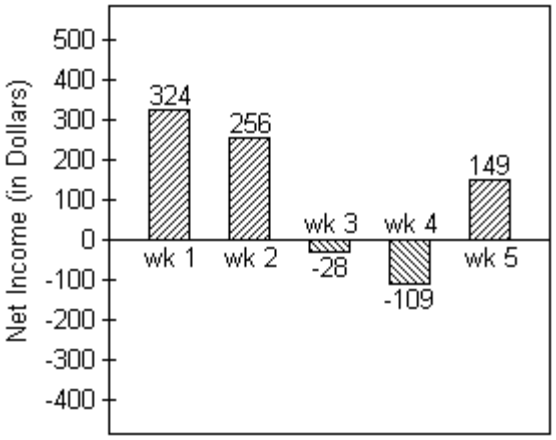
98) –16 – 0 – (–8) – 9 + 6

A) –21 B) 7 C) –9 D) –11

Answer: D

Solve the problem.

99) Joel has started a business mowing lawns for the summer. The bar graph below tracks his net income for five weeks.



Find the difference in Joel's net income between week 5 and week 3.

A) $111 B) $177 C) $167 D) $121

Answer: B

100) City A has an elevation of 15,054 feet above sea level while city B has an elevation of 16,383 feet below sea level. Find the difference in elevation between those two cities.

A) 31,437 ft B) 1329 ft C) 1429 ft D) 31,537 ft

Answer: A

101) The temperature on a December morning is –4° F at 2a.m. If the temperature drops 3° by 3 a.m., rises 5° by 4 a.m., and then drops 9° by 5a.m., find the temperature by 5 a.m.

A) 11° F B) 21° F C) –21° F D) –11° F

Answer: D

102) The temperature at 5:00 was –3° C. Four hours later, it was –14° C. What was the change in temperature?

A) 17° C B) 11° C C) –17° C D) –11° C

Answer: D

103) Trader Tower stands at 2464 feet high. Exchange Emporium is 835 feet tall. How much taller is Trader Tower than Exchange Emporium?

A) –3299 feet B) 3299 feet C) 1629 feet D) –1629 feet

Answer: C

104) Leah has $243 in her checking account. She writes a check for $43, makes a deposit for $92, and then writes another check for $114. Find the amount left in her account. (Write the amount as an integer.)

A) –178 dollars B) –6 dollars C) 6 dollars D) 178 dollars

Answer: D

105) In a card game, it is possible to have a negative score. If Kayla's score is 23, what is her new score if she loses 34 points?
A) –57 points B) 57 points C) 11 points D) –11 points
Answer: D

106) Sean has $267 in his savings account. After he withdraws $71, what will his balance be?
A) –$338 B) $338 C) –$196 D) $196
Answer: D

Multiply.

107) –5(–6)
A) 300 B) 25 C) 20 D) 30
Answer: D

108) –9(10)
A) 90 B) –81 C) –90 D) –80
Answer: C

109) 8(–6)
A) –48 B) –38 C) 48 D) –40
Answer: A

110) –20(–10)
A) 210 B) 200 C) –220 D) 220
Answer: B

111) –14(7)
A) 84 B) –84 C) –98 D) –105
Answer: C

112) 13(–12)
A) –156 B) –144 C) –169 D) 169
Answer: A

113) –10(0)
A) 0 B) –10 C) 10 D) –20
Answer: A

Solve the problem.

114) Goode's Sporting Store marked $3 off the price of each basketball in stock. If there are 120 basketballs in stock, write the total reduction in price of all basketballs as an integer.
A) –$360 B) –$40 C) $360 D) $40
Answer: A

115) During a cold front in Alaska the temperature dropped 5°F each hour for 3 hours. Express the total drop in temperature as an integer.
A) –15°F B) 15°F C) –5°F D) –10°F
Answer: A

Multiply.

116) (–4)(–5)(4)
A) –80 B) 180 C) 80 D) 70
Answer: C

117) (6)(–7)(–7)
A) –84 B) –294 C) 294 D) 304
Answer: C

118) (–3)(–4)(6)
A) 62 B) –72 C) 72 D) 172
Answer: C

119) (–3)(–7)(–10)
A) –110 B) –210 C) –220 D) 210
Answer: B

120) 10(–1)(5)(–7)
A) 350 B) –350 C) 12 D) 45
Answer: A

121) (–15)(0)(–3)(10)
A) –15 B) 1 C) 15 D) 0
Answer: D

122) (–5)(–3)(–5)(–4)
A) –60 B) 300 C) –300 D) 60
Answer: B

123) (–3)(4)(–1)(–5)(3)
A) 180 B) –180 C) 60 D) –60
Answer: B

Evaluate.

124) $(-7)^2$
A) –49 B) 49 C) 14 D) –14
Answer: B

125) -6^2
A) –12 B) –36 C) 12 D) 36
Answer: B

126) $(-8)^3$
A) 512 B) 24 C) –24 D) –512
Answer: D

127) -3^3
A) –9 B) 27 C) –27 D) 9
Answer: C

128) $(-1)^{26}$

A) –26 B) 1 C) –1 D) 26

Answer: B

129) $(-1)^{13}$

A) –1 B) –13 C) 1 D) 13

Answer: A

130) -1^{6}

A) 1 B) –6 C) –1 D) 6

Answer: C

131) -1^{27}

A) –1 B) 1 C) –27 D) 27

Answer: A

132) Evaluate x^2 for x = –7.

A) –14 B) 49 C) –49 D) 14

Answer: B

133) Evaluate x^3 for x = –8.

A) 24 B) 512 C) –24 D) –512

Answer: D

Divide.

134) 42 ÷ 6

A) 7 B) –36 C) 36 D) –7

Answer: A

135) 24 ÷ (–6)

A) –18 B) 18 C) –4 D) 4

Answer: C

136) –12 ÷ 4

A) –8 B) 8 C) –3 D) 3

Answer: C

137) –20 ÷ (–4)

A) 5 B) –5 C) –16 D) 16

Answer: A

138) $\frac{60}{6}$

A) 54 B) 10 C) –54 D) –10

Answer: B

139) $\frac{30}{-6}$

A) –5 B) 24 C) 5 D) –24

Answer: A

140) $\frac{-48}{8}$

A) 6 B) 40 C) –6 D) –40

Answer: C

141) $\frac{-70}{-10}$

A) –60 B) –7 C) 7 D) 60

Answer: C

Evaluate.

142) Evaluate $\frac{-a}{b}$ for a = –49 and b = –7.

A) 7 B) –7 C) 42 D) –42

Answer: B

143) Evaluate $\frac{-x}{-y}$ for x = –12 and y = 3.

A) 4 B) –9 C) 9 D) –4

Answer: D

Simplify.

144) $-9 + 3 \cdot 8$

A) 33 B) –15 C) 15 D) 48

Answer: C

145) –1 – 2(4 – 8)

A) –7 B) –9 C) 9 D) 7

Answer: D

146) 2(–4)(7 – 5) – 2

A) –14 B) –10 C) –18 D) 14

Answer: C

147) 80 ÷ (–4) – 14

A) –16 B) –34 C) 34 D) 16

Answer: B

148) 7^3 –5(1)

A) 1 B) –348 C) 338 D) 343

Answer: C

149) $16 \div (-4) + (-4)$

A) –12 B) –8 C) 8 D) 0

Answer: B

150) $6 - 3(10 - 3^2) + 7$

A) –10 B) –4 C) 10 D) 4

Answer: C

151) $6^2 - 5(3) + 28 \div 4$

A) 10 B) 28 C) 88 D) $\frac{49}{4}$

Answer: B

152) $9(-4) + (3 - 5)^2$

A) –20 B) –32 C) 1156 D) 40

Answer: B

153) $(2 - 7)^2 \div (4 - 3)^3$

A) –25 B) 10 C) –10 D) 25

Answer: D

154) $21 \div [3 \cdot (-14 \div (-2))]$

A) –1 B) 1 C) –7 D) –3

Answer: B

155) $\frac{[20 \div (-4) + 1]}{[1 - (-1)]}$

A) –1 B) 2 C) –2 D) undefined

Answer: C

156) $\frac{[3^2 + 6(-5)]}{[4 + (-11)]}$

A) –3 B) 4 C) $\frac{7}{5}$ D) 3

Answer: D

157) $\frac{[9 - 3(-1)]}{[11 - (15)]}$

A) –4 B) –12 C) 3 D) –3

Answer: D

158) $\frac{6(-5) - 2 + 10}{-66 \div 3}$

A) $\frac{1}{3}$ B) 3 C) – 1 D) 1

Answer: D

159) $\frac{12(-1) - (-8)(-9)}{2[-20 \div (-5 - 5)]}$

A) –15 B) undefined C) –21 D) 21

Answer: C

Solve the problem.

160) A plane flying at an altitude of 20,000 feet descends 2000 feet three times before ascending 1000 feet. What is the current altitude of the plane?

A) 14,000 ft B) 15,000 ft C) 25,000 ft D) 13,000 ft

Answer: B

161) During a storm in Anchorage, Alaska, the temperature was 10°F at noon. Then it dropped 5°F each hour for the next 2 hours, followed by an additional drop of 7°F the third hour. What was the temperature at 3 P.M.?

A) –5°F B) 7°F C) –7°F D) –8°F

Answer: C

Ions are atoms or groups of atoms with positive or negative electrical charges. The charges of some ions are given. Use these values to find the total charge.

borate –3	**calcium +2**	**hydroxide –1**
nickel +3	**oxalate –2**	**sodium +1**

162) 13 borate and 9 hydroxide

A) –40 B) –48 C) –30 D) +30

Answer: B

163) 6 calcium, 13 sodium, and 3 borate

A) –10 B) +16 C) +34 D) –8

Answer: B

A football team had control of the ball for the first nine plays in a game. The chart shows the yards gained or lost in each of those plays.

Play #	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Yards gained (+) or lost (–)	**+2**	**+15**	**–2**	**–3**	**+20**	**–5**	**–12**	**–13**	**+7**

164) What was the net gain or loss considering the first eight plays?

A) –2 yards B) +12 yards C) +2 yards D) +24 yards

Answer: C

165) If the team had lost four times as many yards in the third play as it did, what would the total gain or loss have been for the third and fourth plays combined?

A) –11 yards B) 11 yards C) –14 yards D) –5 yards

Answer: A

Simplify by combining like terms.

166) $-7x + 4x$

A) $-3x$ B) $-3x^2$ C) $3x$ D) $-11x$

Answer: A

167) 9y + (–7y)
A) –16y B) 2y C) $2y^2$ D) –2y
Answer: B

168) –2a – 7a
A) –5a B) –9a C) 9a D) 5a
Answer: B

169) –7b – (–2b)
A) –5b B) 9b C) 5b D) –9b
Answer: A

170) –8x + (–6x)
A) –14x B) 14x C) 2x D) –2x
Answer: A

171) 6a – 4a + 2b
A) 4ab B) –2a + 2b C) 10a + 2b D) 2a + 2b
Answer: D

172) –15y – 9x – 6x
A) –30xy B) –15x – 15y C) –3x– 15y D) –15x – 3y
Answer: B

173) 7x – 3 – 2x + 8
A) 9x + 5 B) 10x C) 5x – 5 D) 5x + 5
Answer: D

174) 5x + 4y + 2x + 8y
A) 19xy B) 12x + 7y C) 7x + 12y D) 7x – 12y
Answer: C

175) 7ab + 4 + 3ab – 2
A) 10ab – 2 B) 10ab + 2 C) 12ab D) 10a + 10b + 2
Answer: B

176) –2x + 4xy + 5x + 8xy
A) 3x – 12xy B) 12y + 15xy C) 15xy D) 3x + 12xy
Answer: D

177) 2a + 3 – 9ab + 3ab – 5a
A) –3a + 6ab + 3 B) –3a – 12ab + 3 C) 3a – 6ab + 3 D) –3a – 6ab + 3
Answer: D

178) 5y + 2xy – 5x – 2y + 8x
A) 3x – 3y + 2xy B) 3x + 3y + 2xy C) 3x + 7y + 2xy D) – 3x + 3y – 2xy
Answer: B

Evaluate.

179) $x + 5y$ for $x = 5$ and $y = 7$

A) 10 B) 30 C) 70 D) 40

Answer: D

180) $a - 11b$ for $a = 2$ and $b = 10$

A) −19 B) −108 C) 1 D) 112

Answer: B

181) $x - 7y$ for $x = 1$ and $y = -5$

A) 34 B) −36 C) 36 D) −34

Answer: C

182) $m \cdot n - 9$ for $m = -3$ and $n = 8$

A) −33 B) −15 C) 15 D) 3

Answer: A

183) $\frac{(a + b)}{4}$ for $a = -9$ and $b = 5$

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

Answer: B

184) $2t^2$ for $t = -4$

A) 32 B) 16 C) −32 D) −16

Answer: A

185) $8 - x^2$ for $x = -7$

A) 22 B) 57 C) −41 D) −6

Answer: C

186) $7x^2 + 5x$ for $x = 4$

A) 48 B) 76 C) 92 D) 132

Answer: D

187) $(4x)^2 - 8x$ for $x = 3$

A) 136 B) 120 C) 12 D) 24

Answer: B

188) $\frac{(a + b^2)}{-7}$ for $a = 30$ and $b = 3$

A) 3 B) −2 C) −3 D) 2

Answer: C

Simplify.

189) $-6(x + 7)$

A) $6x - 42$ B) $-6x - 7$ C) $-6x + 42$ D) $-6x - 42$

Answer: D

190) –2(y – 5)
A) 2y + 10 B) –2y – 10 C) 2y – 10 D) –2y + 10
Answer: D

191) –1(x + 5)
A) x + 5 B) –x – 5 C) –x + 5 D) x – 5
Answer: B

192) –1(a – 4)
A) a – 4 B) a + 4 C) –a – 4 D) –a + 4
Answer: D

193) –5(–8 + x)
A) 40 – 5x B) –40 + 5x C) –40 – 5x D) 40 + 5x
Answer: A

194) –5(–1 + y)
A) 5 + 5y B) 5 – 5y C) –5 + 5y D) –5 – 5y
Answer: B

Solve the problem.

195) To find the speed of a free–falling skydiver we use the formula s = v – 32t, where s is the speed of the skydiver, v is the initial velocity, and t is the time since the start of the free fall. Find the speed of a skydiver at time t = 2 seconds if her initial downward velocity (v) is –8 feet per second.
A) –56 ft/sec B) 258 ft/sec C) –64 ft/sec D) –72 ft/sec
Answer: D

196) In the metric system temperature is measured on the Celsius scale. To convert Fahrenheit temperature to Celsius, we can use the formula $C = \frac{5F - 160}{9}$ where F is the number of Fahrenheit degrees and C is the number of Celsius degrees. When the temperature is 14°F, what is the Celsius reading?
A) 26°C B) –26°C C) –10°C D) –7°C
Answer: C

Replace the ? with the symbol <, >, or =.

197) –347 ? –2
A) > B) = C) <
Answer: C

198) |6| ? |–21|
A) > B) = C) <
Answer: C

Replace the ? with the appropriate symbol, + or –, to describe an increase or a decrease.

199) The Dow Jones Industrial Average gains 14 points. ? 14 points.
A) + B) –
Answer: A

Simplify.

200) $-(-(-6))$

A) 7 B) −6 C) 6 D) −7

Answer: B

201) The opposite of 15 is ____.

A) $-\frac{1}{15}$ B) −15 C) 15 D) 0

Answer: B

202) $|17|$

A) 0 B) −17 C) 17 D) 34

Answer: C

203) $-|-14|$

A) −28 B) −14 C) 0 D) 14

Answer: B

Solve.

204) Last night the temperature dropped to −12°F. At dawn the temperature had risen 17°F. Write the math symbols that represent the situation. At dawn, what was the temperature?

A) −12°F − 17°F = −29°F B) 12°F − 17°F = −5°F

C) 12°F + 17°F = 29°F D) −12°F + 17°F = 5°F

Answer: D

Perform the operations indicated.

205) $-1 + 7$

A) −6 B) 8 C) −8 D) 6

Answer: D

206) $8 + (-9)$

A) −17 B) 1 C) 17 D) −1

Answer: D

207) $-18 + (-7)$

A) −11 B) 11 C) 25 D) −25

Answer: D

208) $-23 + 5 + (-15) + (-1)$

A) 12 B) −44 C) −34 D) −4

Answer: C

209) $9 - 14$

A) −23 B) 5 C) 23 D) −5

Answer: D

210) $-1 - 6$

A) −7 B) −5 C) 7 D) 5

Answer: A

211) –7 – (–15)
A) 8 B) 22 C) –8 D) –22
Answer: A

212) 1 – (–7)
A) –8 B) –6 C) 6 D) 8
Answer: D

213) –14 – 24 + (–8) – 12
A) 6 B) –58 C) –10 D) 18
Answer: B

214) (5)(–9)
A) 45 B) –45 C) –40 D) –35
Answer: B

215) (–6)(–9)
A) 48 B) 540 C) 44 D) 54
Answer: D

216) (–7)(–3)(–1)(10)
A) 31 B) –210 C) 210 D) 6
Answer: B

Evaluate.

217) $(-2)^2$
A) 4 B) –8 C) 8 D) –4
Answer: A

218) $(-2)^3$
A) –6 B) 6 C) 8 D) –8
Answer: D

219) -7^2
A) 14 B) –14 C) 49 D) –49
Answer: D

Divide.

220) –72 ÷ 9
A) 63 B) –63 C) 8 D) –8
Answer: D

221) –32 ÷ (–4)
A) –28 B) 8 C) 28 D) –8
Answer: B

222) $\frac{-15}{5}$

A) –10 B) –3 C) 10 D) 3

Answer: B

Simplify.

223) $3 - 14 \div 2(-2)^2 - 7$

A) –38 B) –6 C) –32 D) –23

Answer: C

224) $\frac{[13 - 2(-1)]}{(11 - 16)}$

A) –4 B) –3 C) 3 D) –15

Answer: B

Evaluate.

225) $11 - x + y$ for $x = -1$ and $y = -8$

A) 20 B) 2 C) 18 D) 4

Answer: D

226) $\frac{2x - y^2}{-9}$ for $x = -1$ and $y = -5$

A) –3 B) 3 C) 4 D) –4

Answer: B

227) x^6 for $x = -1$

A) –6 B) 6 C) 1 D) –1

Answer: C

228) a^3 for $a = -5$

A) 15 B) –15 C) 125 D) –125

Answer: D

229) $\frac{-x}{y}$ for $x = -24$ and $y = -3$

A) –21 B) 21 C) –8 D) 8

Answer: C

Simplify.

230) $-4x - 4y + 8x + 6y$

A) 6xy B) 2x + 4y C) 4x + 2y D) 4x – 2y

Answer: C

231) $5x + 9xy - 7y + 6x - 2y$

A) 11x – 9y + 9xy B) – 11x – 9y – 9xy C) 11x – 5y + 9xy D) 11x + 9y + 9xy

Answer: A

232) –2(a + 7)
A) –2a – 7 B) –2a – 14 C) 2a – 14 D) –2a + 14
Answer: B

233) –5(x – 7)
A) 5x + 35 B) 5x – 35 C) –5x + 35 D) –5x – 35
Answer: C

Solve.

234) For the first quarter of the year, Earth Systems had a $20,000 profit. For the second quarter, the company had a $ 4000 loss. What was the company's overall profit or loss at the end of the second quarter?
A) $24,000 loss B) $16,000 loss C) $16,000 profit D) $24,000 profit
Answer: C

235) Find the difference in altitude between a mountain 2900 feet high and a desert valley 388 feet below sea level.
A) 3388 ft B) 3288 ft C) 2512 ft D) 3188 ft
Answer: B

236) Use the formula s = v – 32t to find the speed (s) of a free–falling skydiver at t = 5 seconds if her initial downward velocity (v) is –8 feet per second.
A) –168 ft/sec B) –152 ft/sec C) 261 ft/sec D) –160 ft/sec
Answer: A