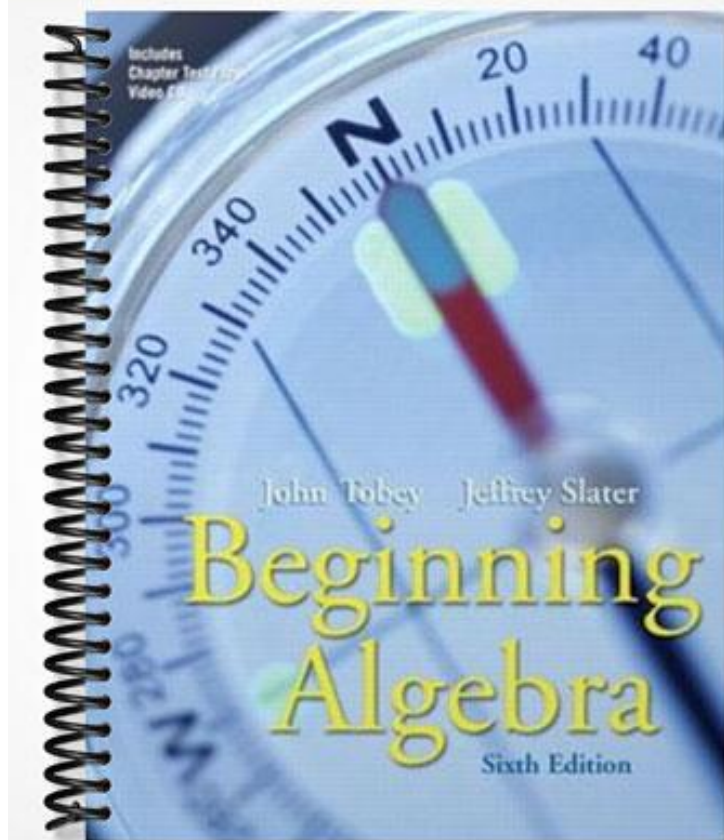


**TEST BANK**



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

Choose which of the following descriptions apply to the number (more than one may apply):  
whole, integer, rational, irrational, real.

1) 87 1) \_\_\_\_\_

- A) Real, rational, integer      B) Real, rational, whole  
C) Real, rational, integer, whole      D) Real

2) -29 2) \_\_\_\_\_

- A) Real, rational, integer      B) Real, rational  
C) Real, rational, integer, whole      D) Real, irrational

3)  $\sqrt{14}$  3) \_\_\_\_\_

- A) Real, irrational      B) Real, irrational, integer  
C) Real      D) Real, rational

4) 0 4) \_\_\_\_\_

- A) Real, rational, integer, whole      B) Real, rational  
C) Real, rational, integer      D) Real, whole

5) 9.31 5) \_\_\_\_\_

- A) Whole, rational, real      B) Rational  
C) Rational, real      D) Real, irrational

6) 0.5959... 6) \_\_\_\_\_

- A) Irrational, real      B) Whole, rational, real  
C) Rational, real      D) Real

7)  $\frac{1}{6}$  7) \_\_\_\_\_

- A) Real, rational      B) Real, rational, integer  
C) Real, whole      D) Real, irrational

8)  $-\sqrt{5}$  8) \_\_\_\_\_

- A) Real, irrational      B) Real, whole  
C) Real, integer      D) Real, rational

9) 0.41140..... [nonrepeating, nonterminating] 9) \_\_\_\_\_

- A) Real, rational      B) Real, irrational, integer  
C) Real      D) Real, irrational

10)  $\frac{3}{4}$  10) \_\_\_\_\_

- A) Real, irrational      B) Real, rational  
C) Real, rational, integer      D) Real, whole

**Use a real number to represent the situation.**

11) They hiked 373 feet above sea level. 11) \_\_\_\_\_

- A) - 373      B) + 373

12) The thermometer read 43° below zero. 12) \_\_\_\_\_

A) + 43

B) - 43

13) The stock experienced a \$ 301 loss.

A) + 301

B) - 301

13) \_\_\_\_\_

14) After a year at Weight Watchers, Simone had lost 45 pounds.

A) -45

B) +45

14) \_\_\_\_\_

15) The little girl was pleased at finding 38 cents.

A) + 38

B) - 38

15) \_\_\_\_\_

16) The team gave up 24 points.

A) + 24

B) - 24

16) \_\_\_\_\_

17) Roseanne lost \$621.91 on the stock market.

A) +621.91

B) -621.91

17) \_\_\_\_\_

18) Joey grew  $1\frac{5}{6}$  inches in the span of two years.

A)  $\frac{5}{6}$   
-1

B)  $\frac{5}{6}$   
+1

18) \_\_\_\_\_

**Add.**

19)  $16 + 25$

A) 42

B) 40

C) 41

D) -9

19) \_\_\_\_\_

20)  $-10 + (-3)$

A) 7

B) 13

C) -13

D) -7

20) \_\_\_\_\_

21)  $-4.2 + (-19.3)$

A) 23.5

B) 15.1

C) -23.5

D) -15.1

21) \_\_\_\_\_

22)  $\frac{2}{19} + \left(-\frac{13}{19}\right)$

A)  $\frac{15}{38}$

B)  $\frac{15}{19}$

C)  $\frac{15}{19}$

D)  $\frac{11}{19}$

22) \_\_\_\_\_

23)  $\left(\frac{3}{5} + \frac{2}{15}\right)$

A)  $\frac{11}{15}$

B)  $\frac{56}{75}$

C)  $\frac{1}{3}$

D)  $\frac{1}{4}$

23) \_\_\_\_\_

24)  $-10.95 + (-10.9)$

A) 0.05

B) -21.85

C) -0.05

D) -21.04

24) \_\_\_\_\_

**Find the absolute value.**

25)  $|24|$

A) 24

B) -24

C) 0

D) 48

25) \_\_\_\_\_

26)  $|-24|$

A) 0

B) 48

C) 24

D) -24

26) \_\_\_\_\_



40)  $\frac{7}{10} + (-\frac{3}{5})$  40) \_\_\_\_\_  
 A)  $\frac{13}{10}$  B)  $\frac{13}{10}$  C)  $\frac{1}{10}$  D)  $\frac{1}{10}$

41)  $\frac{4}{7} + \frac{7}{9}$  41) \_\_\_\_\_  
 A)  $\frac{1}{21}$  B)  $\frac{13}{9}$  C)  $\frac{1}{3}$  D)  $\frac{13}{63}$

42)  $\frac{6}{8} + (-\frac{4}{6})$  42) \_\_\_\_\_  
 A)  $\frac{1}{4}$  B)  $\frac{1}{24}$  C)  $\frac{1}{12}$  D)  $\frac{1}{2}$

**Solve the problem.**

43) On part of a scenic tour of underground caves, Dave and Neil started at an elevation of 31 feet below sea level. They then rose 18 feet. Represent their distance below sea level as a signed integer. 43) \_\_\_\_\_  
 A) 13 feet B) -13 feet C) 49 feet D) -49 feet

44) At the start of a chemistry experiment, Sarah measured the temperature of a liquid to be  $-15^{\circ}\text{C}$ . At the end of the experiment, it had risen  $39^{\circ}\text{C}$ . What was the liquid's temperature at the end of the experiment? 44) \_\_\_\_\_  
 A)  $54^{\circ}\text{C}$  B)  $-24^{\circ}\text{C}$  C)  $24^{\circ}\text{C}$  D)  $-54^{\circ}\text{C}$

45) The difference between a country's exports and imports is called the country's trade balance. In 1982, a country had \$ 69 billion in exports and \$ 103 billion in imports. What was the country's trade balance in 1982? 45) \_\_\_\_\_  
 A) \$ 34 billion B) \$ 172 billion  
 C) -\$ 34 billion D) -\$ 172 billion

46) In a card game, it is possible to have a negative score. If Laura's score is 13, what is her new score if she loses 20 points? 46) \_\_\_\_\_  
 A) 7 points B) 33 points  
 C) -7 points D) -33 points

**Add.**

47)  $-17 + (-6) + 11$  47) \_\_\_\_\_  
 A) -12 B) 22 C) 0 D) -34

48)  $2 + (-5) + 11 + (-5)$  48) \_\_\_\_\_  
 A) 3 B) -9 C) -19 D) 23

49)  $-15.57 + 9.66 + (-2.5)$  49) \_\_\_\_\_  
 A) 22.73 B) -27.73 C) -8.41 D) -3.41

50)  $-1.4 + 0.5 + (-0.2) + 0.4$  50) \_\_\_\_\_  
 A) 2.7 B) 2.1 C) -0.3 D) -0.7

**Solve the problem.**

- 51) A deep-sea diver dives from the surface to 184 meters below the surface and then swims up 10 meters, down 19 meters, down another 28 meters, and then up 22 meters. Find the diver's depth after these movements. 51) \_\_\_\_\_
- A) 199 meters below the surface  
B) 105 meters below the surface  
C) 143 meters below the surface  
D) 219 meters below the surface
- 52) Jared borrowed \$285 from his friend Linda. He paid her back \$50, but then had to borrow another \$92. How much does he still owe her? 52) \_\_\_\_\_
- A) \$243                      B) \$143                      C) \$427                      D) \$327
- 53) The population of a particular species of insect was 17,000 in 1960. In 1980, there were 1500 fewer, and this year, there are 3500 fewer. What is the current population? 53) \_\_\_\_\_
- A) 12,000 insects                      B) 22,000 insects  
C) 15,000 insects                      D) 19,000 insects
- 54) The temperature on a December morning is  $-7^{\circ}$  F at 5a.m. If the temperature drops  $5^{\circ}$  by 6 a.m., rises  $6^{\circ}$  by 7 a.m., and then drops  $2^{\circ}$  by 8a.m., find the temperature at 8 a.m. 54) \_\_\_\_\_
- A)  $8^{\circ}$  F                      B)  $-8^{\circ}$  F                      C)  $-20^{\circ}$  F                      D)  $20^{\circ}$  F
- 55) Gina has \$ 222 in her checking account. She writes a check for \$ 21, makes a deposit for \$ 74, and then writes another check for \$ 152. Find the amount left in her account. (Write the amount as an integer.) 55) \_\_\_\_\_
- A) 123 dollars                      B) -25 dollars  
C) 25 dollars                      D) -123 dollars

**Subtract.**

- 56)  $2 - 6$  56) \_\_\_\_\_
- A) 8                      B) 4                      C) -8                      D) -4
- 57)  $-2 - 7$  57) \_\_\_\_\_
- A) 9                      B) -9                      C) -5                      D) 5
- 58)  $-10 - (-4)$  58) \_\_\_\_\_
- A) 6                      B) -14                      C) 14                      D) -6
- 59)  $6 - (-3)$  59) \_\_\_\_\_
- A) 3                      B) -9                      C) 9                      D) -3
- 60)  $-11 - 11$  60) \_\_\_\_\_
- A) 22                      B) 0                      C) -11                      D) -22
- 61)  $-6 - (-6)$  61) \_\_\_\_\_
- A) 6                      B) -6                      C) 0                      D) 1
- 62)  $0 - (-10)$  62) \_\_\_\_\_
- A) 20                      B) -10                      C) 10                      D) 0

- 63)  $3 - (-3)$       A) -6      B) 0      C) 6      D) 3      63) \_\_\_\_\_
- 64)  $20 - 44$       A) 24      B) 64      C) -64      D) -24      64) \_\_\_\_\_
- 65)  $-34 - (-98)$       A) -64      B) -132      C) 64      D) 132      65) \_\_\_\_\_
- 66)  $\frac{3}{5} - \left(-\frac{1}{3}\right)$       A)  $\frac{8}{15}$       B)  $\frac{8}{75}$       C)  $\frac{14}{15}$       D)  $\frac{14}{15}$       66) \_\_\_\_\_
- 67)  $\frac{1}{2} - \left(\frac{1}{56}\right)$       A)  $\frac{5}{56}$       B)  $\frac{29}{56}$       C)  $\frac{29}{56}$       D)  $\frac{5}{448}$       67) \_\_\_\_\_
- 68)  $\frac{7}{8} - 8$       A)  $\frac{57}{8}$       B)  $\frac{71}{8}$       C)  $\frac{57}{8}$       D)  $\frac{1}{8}$       68) \_\_\_\_\_
- 69)  $\frac{2}{5} - (-8)$       A)  $\frac{42}{5}$       B)  $\frac{6}{5}$       C)  $\frac{38}{5}$       D) 2      69) \_\_\_\_\_
- 70)  $5 - \left(-\frac{6}{7}\right)$       A)  $\frac{11}{7}$       B)  $\frac{29}{7}$       C)  $\frac{41}{7}$       D)  $\frac{1}{7}$       70) \_\_\_\_\_
- 71)  $-5.2 - (-2.0)$       A) -7.2      B) 3.2      C) 7.2      D) -3.2      71) \_\_\_\_\_
- 72)  $(0.38) - (-0.23)$       A) -0.15      B) 0.61      C) -0.0874      D) -0.05      72) \_\_\_\_\_
- 73)  $-6.27 - 3.27$       A) 9.54      B) -9.54      C) -3      D) 3      73) \_\_\_\_\_
- 74)  $148 - (-67.5)$       A) 215.5      B) 80.5      C) -215.5      D) -80.5      74) \_\_\_\_\_
- 75)  $12 - (-4.439)$       A) -7.561      B) 7.561      C) -16.439      D) 16.439      75) \_\_\_\_\_

- 76) Subtract -10 from 9. 76) \_\_\_\_\_  
 A) -1 B) 1 C) 19 D) -19
- 77) Subtract -10 from -4. 77) \_\_\_\_\_  
 A) -14 B) 6 C) 14 D) -6
- 78) Subtract 34 from -13. 78) \_\_\_\_\_  
 A) 21 B) -21 C) 47 D) -47
- 79) Subtract -17 from -31. 79) \_\_\_\_\_  
 A) -14 B) 48 C) 14 D) -48

**Combine the numbers.**

- 80)  $9 + (-7) - (-11)$  80) \_\_\_\_\_  
 A) 13 B) -13 C) 5 D) -9
- 81)  $-2 - (-20) + (-12)$  81) \_\_\_\_\_  
 A) -6 B) -34 C) 6 D) -10
- 82)  $19 - (-13) + 11 + (-17)$  82) \_\_\_\_\_  
 A) 26 B) 34 C) -4 D) -34
- 83)  $-20 + 6 - 11 + (-9)$  83) \_\_\_\_\_  
 A) -24 B) -16 C) -34 D) -12
- 84)  $14 + (-2) - 3 - (-14)$  84) \_\_\_\_\_  
 A) -5 B) 1 C) 5 D) 23
- 85)  $1 + (-12) - 17 - (-16) + 9$  85) \_\_\_\_\_  
 A) -35 B) 5 C) -3 D) -1
- 86)  $-5 - 0 - (-1) - 5 + 6$  86) \_\_\_\_\_  
 A) 7 B) -7 C) 5 D) -3
- 87)  $-12 + 2 + 14$  87) \_\_\_\_\_  
 A) 0 B) -28 C) 4 D) -24
- 88)  $10 - 3 - 11$  88) \_\_\_\_\_  
 A) 24 B) 18 C) -4 D) 2
- 89)  $-4.6 - (-8.8) + 2.7$  89) \_\_\_\_\_  
 A) -10.7 B) 16.1 C) 1.5 D) 6.9

**Solve the problem.**

- 90) Sean has \$572 in his savings account. After he withdraws \$76, what will his balance be? 90) \_\_\_\_\_  
 A) -\$648 B) \$648 C) \$496 D) -\$496
- 91) Trader Tower stands at 2994 feet high. Exchange Emporium is 845 feet tall. How much taller is Trader Tower than Exchange Emporium? 91) \_\_\_\_\_  
 A) -3839 feet B) 3839 feet  
 C) -2149 feet D) 2149 feet



92) The temperature at 5:00 was  $-3^{\circ}\text{C}$ . Four hours later, it was  $-8^{\circ}\text{C}$ . What was the change in temperature?  
 A)  $-11^{\circ}\text{C}$       B)  $-5^{\circ}\text{C}$       C)  $5^{\circ}\text{C}$       D)  $11^{\circ}\text{C}$       92) \_\_\_\_\_

93) The difference between a country's exports and imports is called the country's *trade balance*. In 1990, a country had \$ 50 billion in exports and \$ 295 billion in imports. What was the country's trade balance in 1990?  
 A) \$ 245 billion      B) -\$ 345 billion  
 C) \$ 345 billion      D) -\$ 245 billion      93) \_\_\_\_\_

94) A plane is flying over the ocean at a height of 12,481 feet above sea level. The depth of the ocean directly below the plane is 19,156 feet. How high is the plane above the ocean floor?  
 A) 31,637 feet      B) 6775 feet  
 C) 6675 feet      D) 31,737 feet      94) \_\_\_\_\_

**Multiply.**

95)  $(12)(-5)$   
 A) -60      B) -160      C) -600      D) -72      95) \_\_\_\_\_

96)  $(-4)(5)$   
 A) -25      B) -20      C) -120      D) -200      96) \_\_\_\_\_

97)  $(8)(-4)$   
 A) -22      B) -64      C) -32      D) 32      97) \_\_\_\_\_

98)  $0(-19)$   
 A) 0      B) 19      C) -38      D) -19      98) \_\_\_\_\_

99)  $\left(\frac{15}{18}\right)\left(\frac{2}{5}\right)$   
 A)  $\frac{5}{6}$       B)  $\frac{1}{3}$       C)  $\frac{1}{3}$       D)  $\frac{4}{5}$       99) \_\_\_\_\_

100)  $\left(\frac{17}{6}\right) - \left(\frac{19}{7}\right)$   
 A) -36      B)  $\frac{6}{7}$       C) -323      D)  $\frac{323}{42}$       100) \_\_\_\_\_

101)  $\left(-\frac{9}{10}\right) - \left(\frac{7}{19}\right)$   
 A)  $\frac{63}{190}$       B)  $\frac{16}{29}$       C)  $\frac{8}{95}$       D)  $\frac{63}{29}$       101) \_\_\_\_\_

102)  $1.3(-4.59)$   
 A) 5.89      B) -3.29      C) -5.967      D) 5.99      102) \_\_\_\_\_

103)  $-1.1(-20)$   
 A) 22      B) -18.9      C) -21.1      D) 21.1      103) \_\_\_\_\_

- 104)  $\left(\frac{9}{7}\right)$  104) \_\_\_\_\_  
 $-2\left(\frac{18}{7}\right)$   
 A)  $\frac{18}{7}$       B)  $\frac{17}{28}$       C)  $\frac{18}{7}$       D)  $\frac{14}{9}$

**Solve the problem.**

- 105) At the end of last year, Widgets Unlimited, Inc. posted a net income of  $-\$200.9$  billion. If this continues, what would its income be after three years? 105) \_\_\_\_\_  
 A)  $-\$203.9$  billion      B)  $\$602.7$  billion  
 C)  $-\$6027$  billion      D)  $-\$602.7$  billion
- 106) Chris lost  $\$9.69$  playing poker in one week. If this continued, what would be his net winnings or losses after five weeks? 106) \_\_\_\_\_  
 A)  $-\$4845.00$       B)  $\$48.45$   
 C)  $-\$484.50$       D)  $-\$48.45$
- 107) Ben lost  $\$256$  on each of 4 consecutive days in the stock market. If he had  $\$16,345$  before his loss, how much does he have after his loss? 107) \_\_\_\_\_  
 A)  $\$17,369$       B)  $\$15,321$       C)  $\$1024$       D)  $\$16,089$
- 108) A weather forecaster predicts that the temperature will drop 3 degrees each hour for the next 3 hours. If the temperature is 38 degrees before the temperature starts falling, what is the temperature after the drop? 108) \_\_\_\_\_  
 A)  $32^\circ$       B)  $-9^\circ$       C)  $9^\circ$       D)  $29^\circ$
- 109) Your favorite stock opened the day's trading at  $\$41.18$  per share. When trading closed for the day, your stock was priced at  $\$32.88$  per share. If you own 85 shares, what was your profit or loss that day? 109) \_\_\_\_\_  
 A) A loss of  $\$8.30$       B) A profit of  $\$8.30$   
 C) A loss of  $\$705.50$       D) A profit of  $\$705.50$
- 110) Christina made a chart summarizing her shop's financial performance over the past three years. 110) \_\_\_\_\_

Description of Month	Number of Months	Average Monthly Income or Loss (in hundreds of dollars)
Excellent	6	+\$20
Good	9	+\$4
Neutral	15	\$0
Poor	4	-\$3
Very poor	2	-\$5

How much money was made in the months described as "Good"?

- A)  $\$12,000$       B)  $\$1200$       C)  $\$1000$       D)  $\$3600$
- 111) Christina made a chart summarizing her shop's financial performance over the past three years.



118)  $(8.3)(6.5)(-4.5)(-7.2)$  118) \_\_\_\_\_  
 A) 242.775      B) -1747.98      C) 1747.98      D) -242.775

119)  $(-800)(0.06)(-56)(9)\left(-\frac{1}{8}\right)$  119) \_\_\_\_\_  
 A) 302.4      B) 3024      C) -302.4      D) -3024

120)  $\left(-\frac{4}{7}\right)\left(\frac{9}{8}\right)\left(-\frac{1}{5}\right)$  120) \_\_\_\_\_  
 A)  $\frac{3}{5}$       B)  $\frac{1}{70}$       C)  $\frac{9}{14}$       D)  $\frac{9}{70}$

121)  $\left(-\frac{8}{13}\right)\left(\frac{17}{18}\right)\left(\frac{5}{11}\right)$  121) \_\_\_\_\_  
 A)  $\frac{10}{3}$       B)  $\frac{340}{1287}$       C)  $\frac{68}{117}$       D)  $\frac{4}{1287}$

122)  $\left(\frac{4}{9}\right)\left(\frac{1}{2}\right)\left(-\frac{3}{8}\right)\left(\frac{3}{10}\right)$  122) \_\_\_\_\_  
 A)  $\frac{1}{288}$       B)  $\frac{1}{40}$       C)  $\frac{1}{288}$       D)  $\frac{1}{40}$

**Divide and write the answer in simplest form.**

123)  $-128 \div 8$  123) \_\_\_\_\_  
 A) -26      B)  $\frac{1}{16}$       C) 16      D) -16

124)  $162 \div (-9)$  124) \_\_\_\_\_  
 A) 18      B) -18      C)  $\frac{1}{18}$       D) -28

125)  $0 \div 41$  125) \_\_\_\_\_  
 A) Undefined      B) -41  
 C) 1      D) 0

126)  $-156 \div (-6)$  126) \_\_\_\_\_  
 A)  $\frac{1}{26}$       B) -26      C) 16      D) 26

127)  $-3.5 \div 0.07$  127) \_\_\_\_\_  
 A) -34.3      B)  $\frac{1}{50}$       C) -3.43      D) -50

128)  $-8.1 \div 9$  128) \_\_\_\_\_  
 A) 9      B) -9      C) -0.9      D) -0.09

129)  $\frac{2}{3} \div \frac{12}{5}$  129) \_\_\_\_\_  
 A)

$$\frac{5}{18}$$

B) 
$$-\frac{8}{5}$$

C) 
$$\frac{8}{5}$$

D) 
$$-\frac{5}{18}$$

130) 
$$\frac{2}{13} \div \left(-\frac{3}{5}\right)$$

130) \_\_\_\_\_

A) 
$$\frac{39}{10}$$

B) 
$$\frac{10}{39}$$

C) 
$$\frac{10}{39}$$

D) 
$$\frac{6}{65}$$

131) 
$$\frac{8}{13} \div \left(-\frac{1}{7}\right)$$

131) \_\_\_\_\_

A) 
$$\frac{8}{91}$$

B) 
$$\frac{13}{56}$$

C) 
$$\frac{56}{13}$$

D) 
$$\frac{56}{13}$$

132)

132) \_\_\_\_\_

$$\frac{\frac{3}{5}}{\frac{1}{6}}$$

A) 
$$\frac{18}{5}$$

B) 
$$\frac{4}{11}$$

C) 
$$\frac{1}{10}$$

D) 
$$\frac{3}{5}$$

**Solve the problem.**

133) Adam owes \$6480 in student loans. If he agrees to consolidate the loans and repay the total amount over 72 months, what would his monthly payment be?

133) \_\_\_\_\_

A) \$648

B) \$720

C) \$90

D) \$ 540

134) Juanita arranged for a car loan of \$16,800. If her monthly payments are \$560, how many months will it take her to pay off the loan?

134) \_\_\_\_\_

A) 70 months

B) 80 months

C) 30 months

D) 300 months

135) Sally will pay \$7200 on her student loan over the next 3 years. If \$200 is automatically deducted from her bank account each month to pay off the loan, how much does she still owe after one year?

135) \_\_\_\_\_

A) \$ 9600

B) \$ 5200

C) \$ 4800

D) \$ 2400

**Write the expression in exponent form.**

136)  $(7)(7)$

136) \_\_\_\_\_

A)  $2 \cdot 7$

B)  $7^2$

C)  $7^3$

D)  $2^7$

137)  $(7)(7)(7)$

137) \_\_\_\_\_

A)  $7^3$

B)  $3^7$

C)  $7^1$

D)  $3 \cdot 7$

138)  $(10)(10)(10)(10)$

138) \_\_\_\_\_

A)  $4^{10}$

B)  $10^4$

C)  $4 \cdot 10$

D)  $10^1$

139)  $(9)(9)(9)(9)(9)$

139) \_\_\_\_\_

A)  $9^9$       B) 59      C)  $9 \cdot 5$       D)  $9^5$

140)  $(7)(7)(7)(7)(7)(7)$       140) \_\_\_\_\_  
A) 76      B) 67      C) 42      D) 75

141)  $(3)(3)(6)(6)(6)(6)$       141) \_\_\_\_\_  
A)  $18^6$       B)  $(3^2)(6^4)$       C)  $(2^3)(4^6)$       D)  $(3)(6^6)$

142)  $(x)(x)(x)(x)(x)(x)(x)$       142) \_\_\_\_\_  
A)  $7x$       B) 7      C)  $x7$       D)  $7^x$

143)  $-7(x)(x)(x)(x)$       143) \_\_\_\_\_  
A)  $(-7x)^4$       B)  $-7x^4$       C)  $-(7x)^4$       D)  $-7(4^x)$

144)  $(8y)(8y)(8y)(8y)(8y)$       144) \_\_\_\_\_  
A)  $40y^5$       B)  $8y^5$       C)  $5y^8$       D)  $(8y)^5$

**Evaluate.**

145) 23      145) \_\_\_\_\_  
A) 8      B) -6      C) 6      D) -8

146) -23      146) \_\_\_\_\_  
A) -6      B) -8      C) 8      D) 6

147)  $(-7)^3$       147) \_\_\_\_\_  
A) 343      B) -21      C) -343      D) 21

148)  $(-10)^2$       148) \_\_\_\_\_  
A) 100      B) 20      C) -100      D) 1024

149)  $4^{12}$       149) \_\_\_\_\_  
A) 4,194,304      B) 20,736  
C) 48      D) 16,777,216

150)  $\left(\frac{3}{7}\right)^2$       150) \_\_\_\_\_  
A)  $\frac{3}{7}$       B)  $\frac{9}{7}$       C)  $\frac{49}{9}$       D)  $\frac{9}{49}$   
2

151)  $\left(\frac{1}{5}\right)^2$       151) \_\_\_\_\_  
A)  $\frac{1}{25}$       B)  $\frac{1}{7}$       C)  $\frac{2}{5}$       D)  $\frac{1}{10}$

152)  $\left(\frac{4}{7}\right)^4$       152) \_\_\_\_\_  
A)  $\frac{16}{7}$       B)  $\frac{1}{64}$       C)  $\frac{256}{2401}$       D)  $\frac{256}{7}$

153)  $(0.3)^2$       153) \_\_\_\_\_

- |      |                                  |                  |                    |         |            |
|------|----------------------------------|------------------|--------------------|---------|------------|
|      | A) 0.15                          | B) 9             | C) 0.6             | D) 0.09 |            |
| 154) | $(0.9)^3$                        |                  |                    |         | 154) _____ |
|      | A) 0.81                          | B) 0.729         | C) 2.7             | D) 1    |            |
| 155) | $2^4 + 10^2$                     |                  |                    |         | 155) _____ |
|      | A) 116                           | B) 28            | C) 108             | D) 36   |            |
| 156) | $3^5 - 5^3$                      |                  |                    |         | 156) _____ |
|      | A) 0                             | B) 368           | C) 118             | D) -118 |            |
| 157) | $(-7)^2 - (-2)^3$                |                  |                    |         | 157) _____ |
|      | A) -41                           | B) 41            | C) -57             | D) 57   |            |
| 158) | $(-5)^2(-6)^3$                   |                  |                    |         | 158) _____ |
|      | A) 5400                          | B) -5400         | C) 180             | D) -180 |            |
| 159) | $9^2(-4)^3$                      |                  |                    |         | 159) _____ |
|      | A) 972                           | B) -5184         | C) 5184            | D) -972 |            |
| 160) | $2^3 - (-11)^2$                  |                  |                    |         | 160) _____ |
|      | A) 129                           | B) -113          | C) -115            | D) 28   |            |
| 161) | $3^3 - (-3)^4$                   |                  |                    |         | 161) _____ |
|      | A) 108                           | B) 91            | C) -54             | D) 21   |            |
| 162) | $(6 - 10)^2 \div 4 \times 2$     |                  |                    |         | 162) _____ |
|      | A) 2                             | B) 8             | C) 32              | D) -8   |            |
| 163) | $17 \cdot 16 + 14 \cdot 11$      |                  |                    |         | 163) _____ |
|      | A) 3146                          | B) 426           | C) 2890            | D) 5610 |            |
| 164) | $4 + 72 \div 72 \cdot 3^2$       |                  |                    |         | 164) _____ |
|      | A) 6                             | B) $\frac{9}{2}$ | C) 171             | D) 13   |            |
| 165) | $99 - 10 \cdot 3 + 45 \div (-5)$ |                  |                    |         | 165) _____ |
|      | A) 60                            | B) -854          | C) -27             | D) 258  |            |
| 166) | $(-3 - 8)(-3 + 6) - 54$          |                  |                    |         | 166) _____ |
|      | A) 3                             | B) 592           | C) -658            | D) 625  |            |
| 167) | $3 \cdot 6 - 5(4)^3 \div (-8)$   |                  |                    |         | 167) _____ |
|      | A) -104                          | B) 1018          | C) $\frac{151}{4}$ | D) 58   |            |
| 168) | $2 \cdot 4 - 4(3 - 6)^2$         |                  |                    |         | 168) _____ |
|      | A) -28                           | B) -40           | C) 36              | D) -136 |            |

169)  $\frac{1}{2} \div \frac{1}{4} - 4 \cdot \left(\frac{1}{2}\right)^2$  169) \_\_\_\_\_  
 A)  $\frac{1}{4}$  B) -2 C)  $\frac{1}{2}$  D) 1

170)  $\frac{3}{5} + \frac{5}{6} \div \left(-\frac{2}{5}\right) \cdot \frac{1}{3}$  170) \_\_\_\_\_  
 A)  $\frac{17}{180}$  B)  $\frac{43}{36}$  C)  $\frac{113}{20}$  D)  $\frac{43}{4}$

171)  $8.8 - 9.6 \div 2.5 \cdot (9.1 - 11.6)^2$  171) \_\_\_\_\_  
 A) -15.2 B) 8.1856 C) -0.0512 D) -2

Use the distributive property to simplify.

172)  $-(-5m + 2n - 6p)$  172) \_\_\_\_\_  
 A)  $5m - 2n - 6p$  B)  $-5m + 2n + 6p$   
 C)  $5m - 2n + 6p$  D)  $-5m + 2n - 6p$

173)  $9(x + 2y)$  173) \_\_\_\_\_  
 A)  $9x + 18y$  B)  $9 + 18y$  C)  $9x + 2y$  D)  $9x - 18y$

174)  $7(8a + 7b)$  174) \_\_\_\_\_  
 A)  $56a + 49b$  B)  $8a + 49b$  C)  $105ab$  D)  $56a + 7b$

175)  $12(-5a + 7b - 10)$  175) \_\_\_\_\_  
 A)  $-60a + 84b - 120$  B)  $-60a + 7b - 10$   
 C)  $-60a + 84b$  D)  $-60a + 84b + 120$

176)  $6x(x - 9y + 5z)$  176) \_\_\_\_\_  
 A)  $6x^2 - 54xy + 30xz$  B)  $6x - 54y + 30z$   
 C)  $6x^2 - 9y + 5z$  D)  $6x^2 + 54xy - 30xz$

177)  $(-3x + 7y - 9)(3x)$  177) \_\_\_\_\_  
 A)  $-3x + 7y - 27x$  B)  $-9x + 21y - 27$   
 C)  $-9x^2 + 7y - 9$  D)  $-9x^2 + 21xy - 27x$

178)  $\frac{2}{5}(-5x^2 + 10x - 10)$  178) \_\_\_\_\_  
 A)  $-2x^2 + 20x - 20$  B)  $-2x^2 + 10x - 10$   
 C)  $-2x^2 + 4x - 4$  D)  $-2x^2 - 4x + 4$

179)  $(-2x + 2y + 2)(4xy)$  179) \_\_\_\_\_  
 A)  $-8x^2y + 8xy^2 + 8xy$  B)  $-8x^2 + 8y^2 + 8xy$   
 C)  $-8x^2y - 8xy^2 - 8xy$  D)  $-2x + 2y + 8xy$

180)  $-2.5(2.5x^2 - 1.5x - 2.85)$  180) \_\_\_\_\_



A)  $-6.25x^2 + 3.75x - 2.85$   
 C)  $-6.25x^2 + 3.75x + 7.125$

B)  $-6.25x^2 - 1.5x - 2.85$   
 D)  $-6.25x^2 - 3.75x - 7.125$

181)  $\frac{y}{3}(3y - x + 12)$

A)  $\frac{xy}{3} + 4y$

C)  $\frac{x}{3} + 4$

B)  $1y^2 - x + 12$

D)  $\frac{xy}{3} - 4y$

181) \_\_\_\_\_

**Solve the problem.**

182) A living room is 17 feet wide. The carpeted portion of the room is  $9x$  feet long and the adjacent tiled portion of the room is  $3y$  feet long. Use the distributive property to find an expression for the total area of the living room.

A)  $204(x + y)$  square feet  
 C)  $153x + 3y$  square feet

B)  $26x + 20y$  square feet  
 D)  $153x + 51y$  square feet

182) \_\_\_\_\_

183) The quad at State University is  $6x$  feet wide. Initially, it was 1500 feet long. However, due to the construction of a new science building, the original length was decreased by  $4y$  feet. Use the distributive property to find an expression for the area of the new quad.

A)  $9000x - 24xy$  square feet  
 C)  $9000x - 6000y$  square feet

B)  $9000x + 6000y$  square feet  
 D)  $9000x + 24xy$  square feet

183) \_\_\_\_\_

184) The price of a laptop computer was  $7y$ . During a sale, the price was reduced by \$60. The store sold  $6x$  computers during the first week of the sale. Write an expression with parentheses to represent the value of the computers sold during the first week. Then use the distributive property to write the expression without parentheses.

A)  $7y(6x - 60) = 42xy - 420y$  dollars  
 B)  $6x(7y - 60) = 42xy - 360x$  dollars  
 C)  $6x(7y - 60) = 42xy - 360$  dollars  
 D)  $6x(7y - 60) = 42xy - 60$  dollars

184) \_\_\_\_\_

185) Sara is in charge of painting a mural on the side of a building. The wall is 46 meters long. The wall is  $9x$  meters high up to the window ledge and it is  $7y$  meters from the window ledge to the top. Write an expression with parentheses for the area of the wall. Then use the distributive property to write the expression without parentheses.

A)  $46(9x + 7y) = 414x + 322y$  square meters  
 B)  $9x(7y + 46) = 63xy + 414x$  square meters  
 C)  $9x(7y + 46) = 63xy + 46$  square meters  
 D)  $46(9x + 7y) = 414x + 7y$  square meters

185) \_\_\_\_\_

**List the like terms of the expression.**

186)  $7x - 5x + 2$

A)  $7x$ ,  $-5x$ , and 2 are like terms  
 C)  $7x$  and  $-5x$  are like terms

B) There are no like terms  
 D)  $7x$  and 2 are like terms

186) \_\_\_\_\_



C)  $13a + 15b - 5$

D)  $13a^2 + 7b^2 + 6$

194)  $7x^2 + 2x + 3 + 3x - 9 + 4x^2$

A)  $11x^4 + 5x^2 - 6$

C)  $11x^2 + 5x - 6$

B)  $10x^3$

D)  $7x^2 + 10x - 7$

194) \_\_\_\_\_

195)  $3pq - 7p - 7q + 4p + 2pq - 5$

A)  $-10pq$

C)  $5pq - 3p - 12q$

B)  $5pq - 3p - 7q - 5$

D)  $5pq + 7p + 4q - 5$

195) \_\_\_\_\_

196)  $3ab + 2bc + 3ac - 8bc + 8ab$

A)  $3ab - 5bc + 3ac$

C)  $11ab + 2bc + 3ac - 8abc$

B)  $11ab - 6bc + 3ac$

D)  $11ab + 2bc + 7ac$

196) \_\_\_\_\_

197)  $5n + 6n^6 + 3n + 9n^6$

A)  $8n + 6n^6 + 9$

C)  $8n + 15n^6$

B)  $5n + 15n^6 + 3$

D)  $5n - 13n^6$

197) \_\_\_\_\_

198)  $5.7x - 1.1y - 3.2x + 6y + 2.1x$

A)  $4.6x + 7.1y$

C)  $4.6x - 1.1y + 6$

B)  $11x + 4.9y$

D)  $4.6x + 4.9y$

198) \_\_\_\_\_

199)  $\frac{1}{2}s - \frac{2}{3}t - \frac{8}{9}s + \frac{3}{5}t$

A)  $\frac{7}{18}s - \frac{1}{15}t$

C)  $\frac{1}{18}s - \frac{1}{15}t$

B)  $\frac{1}{2}s - \frac{1}{15}t - \frac{8}{9}$

D)  $\frac{7}{18}s - \frac{2}{3}t + \frac{3}{5}$

199) \_\_\_\_\_

200)  $\frac{1}{9}x - \frac{3}{4}y^2 + \frac{1}{3}x + \frac{1}{3}y^2$

A)  $\frac{2}{9}x^2 - \frac{5}{12}y^4$

C)  $\frac{2}{9}x - \frac{3}{4}y^2 + \frac{1}{3}y$

B)  $\frac{2}{9}x - \frac{5}{12}y^2$

D)  $\frac{2}{27}x - \frac{5}{12}y^2$

200) \_\_\_\_\_

201)  $3ab + 8 + 13a^2b^2 + 6 + 15a^2b^2 + 17ab + 5a^2b^2$

A)  $33a^2b^2 + 20ab + 14$

B)  $3ab + 8 + 13a^2b^2 + 6 + 15a^2b^2 + 17ab + 5a^2b^2$

C)  $5a^2b^2 + 28a^2b^2 + 20ab + 14$

D)  $5a^2b^2 + 48a^2b^2 + 14$

201) \_\_\_\_\_

**Simplify the expression, and combine like terms.**

202)  $-(6v - 7) + 9(2v + 9)$

A)  $12v + \frac{88}{8}$

B)  $12v + \frac{74}{74}$

C)  $12v + 2$

D)  $12v + \frac{16}{16}$

202) \_\_\_\_\_

- 203)  $-5(2x + 4y) + 6(8x + 9y)$  203) \_\_\_\_\_  
 A)  $38x + 4y + 9$  B)  $38x + 34y$   
 C)  $-30xy$  D)  $-3x + 34y$
- 204)  $-10(2xy + 9y^2) + 2y(4x + 9y)$  204) \_\_\_\_\_  
 A)  $-110xy^3 + 4x + 9y$  B)  $-12xy - 72y^2$   
 C)  $-8xy - 1$  D)  $-12xy + 9y^2 + 9y$
- 205)  $5(5a + 7b) - (2a - 6b)$  205) \_\_\_\_\_  
 A)  $23a + 13b$  B)  $27a + 41b$  C)  $23a + 29b$  D)  $23a + 41b$
- 206)  $3(7x^2 + 8y) - (4x^2 - 3y)$  206) \_\_\_\_\_  
 A)  $25x^2 + 11y$  B)  $17x^2 + 21y$   
 C)  $17x^2 + 27y$  D)  $25x^2 + 27y$
- 207)  $8(4a^2 + 9ab) - a(4a - 5b)$  207) \_\_\_\_\_  
 A)  $28a^2 + 67ab$  B)  $28a^2 + 77ab$   
 C)  $36a^2 + 9ab - 5b$  D)  $36a^2 + 77ab$
- 208)  $11n(m + 5n) + 4(8mn + 6n^2)$  208) \_\_\_\_\_  
 A)  $23mn + 26n^2$  B)  $43mn + 24n^2 + 55n$   
 C)  $43mn + 6n^2 + 5n$  D)  $43mn + 79n^2$
- 209)  $5(2 - x) - 6(7 - 4x)$  209) \_\_\_\_\_  
 A)  $3x + 3$  B)  $19x - 32$  C)  $-5x - 32$  D)  $-29x - 32$

**Solve the problem by combining like terms.**

- 210) To convert from meters to centimeters, we multiply by 100. For example, the number of centimeters in 3 meters is  $100 \cdot 3 = 300$ . If one piece of string has a length of  $x - 3$  meters, and another piece of string has a length of  $9x + 5$  centimeters, express their total length in centimeters as an algebraic expression. 210) \_\_\_\_\_  
 A)  $10x + 2$  centimeters B)  $901x + 497$  centimeters  
 C)  $109x - 295$  centimeters D)  $1000x + 200$  centimeters
- 211) The value of 8 dimes is  $10 \cdot 8 = 80$  cents. Likewise, the value of  $x$  dimes is  $10x$  cents. If George finds  $3x - 2$  nickels,  $4x$  dimes, and  $x$  quarters in his change jar, express the total value of change in cents as an algebraic expression. 211) \_\_\_\_\_  
 A)  $55x - 10$  cents B)  $80x - 2$  cents  
 C)  $80x + 10$  cents D)  $80x - 10$  cents
- 212) Given the following quadrilateral, express the perimeter, or total distance around the figure, as an algebraic expression containing the variable  $x$ . \_\_\_\_\_ s

$(2x + 2)$  inches

3  
inche

3x

212)

- A)  $5x + 4$  inches  
C)  $6x + 4$  inches

- B)  $6x + 6$  inches  
D)  $5x + 6$  inches

213) A triangle has sides of length  $14a + 12$  inches,  $3a + 10b$  inches, and  $17b + 20$  inches. What is the perimeter of the triangle? 213) \_\_\_\_\_

- A)  $17a + 27b + 32$  inches  
C)  $17a + 27b + 20$  inches
- B)  $17a + 10b + 32$  inches  
D)  $44ab + 32$  inches

214) Find the perimeter of a triangle whose sides are of lengths  $3x$ ,  $3x + 3$ , and  $x$ . 214) \_\_\_\_\_

- A)  $9x^2 + 9x$   
B)  $9x$   
C)  $7x + 3$   
D)  $6x + 3$

215) Find the perimeter of a square with sides of length  $x - 2$ . 215) \_\_\_\_\_

- A)  $x^2 + 4$   
B)  $4x - 8$   
C)  $4x - 2$   
D)  $x - 8$

216) A rectangle has sides of length  $8x + 3$  meters and  $4x - 5$  meters. What is the perimeter of the rectangle? 216) \_\_\_\_\_

- A)  $20x$  meters  
C)  $24x - 2$  meters
- B)  $12x - 2$  meters  
D)  $24x - 4$  meters

**Evaluate.**

217)  $9x + 9$  for  $x = 7$  217) \_\_\_\_\_

- A) 126  
B) 72  
C) 18  
D) 54

218)  $-5x - 7$  for  $x = -1$  218) \_\_\_\_\_

- A) 12  
B) -2  
C) -12  
D) 2

219)  $2x + 6$  for  $x = \frac{2}{3}$  219) \_\_\_\_\_

- A)  $\frac{14}{3}$   
B)  $\frac{7}{3}$   
C)  $\frac{22}{3}$   
D) 14

220)  $\frac{2}{3}x - 4$  for  $x = 2$  220) \_\_\_\_\_

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

221)  $-7 - 9x$  for  $x = 12$  221) \_\_\_\_\_

- A) -115  
B) -28  
C) 101  
D) -4

222)  $0.8(6.5 - x)$  for  $x = 8$  222) \_\_\_\_\_

- A) 1.2  
B) -1.2  
C) -2.8  
D) 2.8

223)  $7x^2$  for  $x = -10$  223) \_\_\_\_\_

- A) -140  
B) -700  
C) 140  
D) 700

224)  $-9x^2$  for  $x = -5$  224) \_\_\_\_\_

- A) -90  
B) 225  
C) 90  
D) -225

- 225)  $(4x)^2 + 9x$  for  $x = 3$  225) \_\_\_\_\_  
 A) 153 B) 75 C) 63 D) 171
- 226)  $-7 - x^2$  for  $x = -4$  226) \_\_\_\_\_  
 A) -15 B) 1 C) 9 D) -23
- 227)  $-4x^2 + 3x - 5$  for  $x = -3$  227) \_\_\_\_\_  
 A) -50 B) 40 C) 22 D) -32
- 228)  $5x^2 + 2x$  for  $x = 4$  228) \_\_\_\_\_  
 A) 72 B) 88 C) 28 D) 48
- 229)  $\frac{11}{8}x^2 + 3$  for  $x = 3$  229) \_\_\_\_\_  
 A)  $\frac{5}{8}$  B)  $\frac{1}{4}$  C)  $\frac{3}{15}$  D)  $\frac{3}{12}$
- 230)  $x^2 - 5z$  for  $x = -2, z = -4$  230) \_\_\_\_\_  
 A) 14 B) -24 C) -16 D) 16
- 231)  $-10xy + 7y - 7$  for  $x = -4, y = -1$  231) \_\_\_\_\_  
 A) 26 B) -54 C) -47 D) -40
- 232)  $\frac{14x - 6y}{x + 6}$  for  $x = 5, y = 6$  232) \_\_\_\_\_  
 A)  $\frac{17}{6}$  B)  $\frac{9}{2}$  C)  $\frac{54}{11}$  D)  $\frac{34}{11}$
- 233)  $-3x^2 + 7xy - 2y^2$  for  $x = 3$  and  $y = 6$  233) \_\_\_\_\_  
 A) 0 B) 351 C) -78 D) 27
- 234)  $\frac{y - 9x}{8x + xy}$  for  $x = -1$  and  $y = 4$  234) \_\_\_\_\_  
 A)  $\frac{13}{12}$  B)  $\frac{5}{4}$  C)  $\frac{5}{12}$  D)  $\frac{8}{3}$
- 235)  $a^2 - 10abc - c^2$  for  $a = -6, b = 9,$  and  $c = 4$  235) \_\_\_\_\_  
 A) 2108 B) 2212 C) -2140 D) 2180
- 236)  $\frac{a^2 - 5ab}{2b}$  for  $a = -3$  and  $b = -2$  236) \_\_\_\_\_  
 A)  $\frac{21}{4}$  B)  $\frac{39}{4}$  C)  $\frac{7}{2}$  D)  $\frac{21}{4}$

**Solve the problem.**

237) A poster is in the shape of a parallelogram. The base measures 32 inches, and the altitude measures 27 inches. What is the area of the

poste237)  
r?

- A) 59 square feet                      B) 118 square feet  
 C) 1728 square feet                    D) 864 square feet

238) A square component in a television set measures 14 centimeters per side. Next year's design will contain the same square component, but its side will measure only 11 centimeters. By how much will the area of the square be decreased? 238) \_\_\_\_\_

- A) 9 square centimeters                      B) 121 square centimeters  
 C) 75 square centimeters                    D) 12 square centimeters

239) A window is in the shape of a trapezoid. The altitude of the window is 55 inches. One base measures 60 inches, and the other base measures 39 inches. What is the area of the window? 239) \_\_\_\_\_

- A) 2722.5 square inches                      B) 5445 square inches  
 C) 577.5 square inches                      D) 128,700 square inches

240) In a home economics class, students cut triangular pieces of fabric for a quilt. Each triangle had a base of 27 centimeters and an altitude of 26 centimeters. What was the area of each triangular piece of fabric? 240) \_\_\_\_\_

- A) 1404 square centimeters                      B) 351 square centimeters  
 C) 26.5 square centimeters                    D) 702 square centimeters

241) A circular pizza in a contest for the world's largest pizza has a radius of 7 feet. What is the area of the pizza? (Use  $\pi \approx 3.14$  and round to 2 decimal places, if necessary.) 241) \_\_\_\_\_

- A) 153.86 square feet                      B) 307.72 square feet  
 C) 49 square feet                          D) 43.96 square feet

242) The expression  $\frac{5}{9}(F - 32)$  can be used to convert Fahrenheit to Celsius degrees. On January 29, 2001, the high temperature in Savannah was 59° F. Find the corresponding Celsius temperature (to the nearest degree). 242) \_\_\_\_\_

- A) 1° C                      B) 49° C                      C) 33° C                      D) 15° C

243) The temperature recorded on a thermometer was 11° C. Find the corresponding temperature in degrees Fahrenheit. Use the formula  $F = \frac{9}{5}C + 32$ . 243) \_\_\_\_\_

- A) -12.2° F                      B) 51.8° F                      C) -25.9° F                      D) 38.1° F

244) Aaron's map shows that he needs to drive 31 more kilometers to reach his destination. Approximately how many more miles must he drive? Use the formula Miles = 0.62k, where k is the number of kilometers. (Round to the nearest tenth of a mile.) 244) \_\_\_\_\_

- A) 19.2 miles                      B) 14.4 miles  
 C) 30.7 miles                      D) 49.9 miles

245) Find the total cost of tiling a rectangular floor that is 6 meters long and 10 meters wide if it costs \$6.79 to tile one square meter. Round to the nearest cent. 245) \_\_\_\_\_

- A) \$108.64      B) \$60.00      C) \$217.28      D) \$407.40

- 246) A semicircular window of radius 20 inches is to be laminated with a coating that costs \$1.10 per square inch to apply. What is the total cost of coating the window, to the nearest cent? (Use  $\pi \approx 3.14$ ). 246) \_\_\_\_\_  
 A) \$345.40      B) \$690.80      C) \$4338.22      D) \$138.16

**Simplify by removing grouping symbols and combining like terms.**

- 247)  $4x - 2(x + 3y)$  247) \_\_\_\_\_  
 A)  $2x - 6y$       B)  $2x + 3y$       C)  $3x - 6y$       D)  $2x + 6y$

- 248)  $-4(6x - y) - 3(x + 6y)$  248) \_\_\_\_\_  
 A)  $-27x + 22y$       B)  $-27x + 5y$   
 C)  $-27x - 14y$       D)  $-27x + 10y$

- 249)  $4m[5m^2 + 8(3 - m)]$  249) \_\_\_\_\_  
 A)  $20m^3 - 8m + 24$       B)  $20m^3 - 4m^2 + 96m$   
 C)  $20m^3 - 32m^2 + 96m$       D)  $20m^3 + 32m^2 + 96m$

- 250)  $-3[5(4x - y) - 6(x + 3y)]$  250) \_\_\_\_\_  
 A)  $-42x - 6y$       B)  $-42x + 69y$   
 C)  $-42x - 39y$       D)  $-66x - 3y$

- 251)  $2(a + 3b) - [6 - 4(a - b)]$  251) \_\_\_\_\_  
 A)  $-2a + 2b - 6$       B)  $6a + 2b - 6$   
 C)  $6a + 10b - 6$       D)  $-2a + 7b - 6$

- 252)  $3[a - b(6a + 3b) + 3b^2]$  252) \_\_\_\_\_  
 A)  $3a + 9b - 18ab + 9b^2$       B)  $3a - 18ab$   
 C)  $3a - 6ab$       D)  $3a - 18ab + 18b^2$

- 253)  $5x(4x^2 + 4x - 6) - 2x(4 - x)$  253) \_\_\_\_\_  
 A)  $20x^3 - 5x - 6$       B)  $20x^3 + 16x^2 - 38x$   
 C)  $20x^3 + 22x^2 - 38x$       D)  $20x^2 + 22x - 38$

- 254)  $3x^2 - 4[5y + 6y(y + 4)]$  254) \_\_\_\_\_  
 A)  $3x^2 - 24y^2 - 116y$       B)  $3x^2 - 44y - 96$   
 C)  $3x^2 + 24y^2 + 76y$       D)  $3x^2 - 24y^2 - 20y - 16$

- 255)  $2a - \{3b - 5[a - (b + 3a)]\}$  255) \_\_\_\_\_  
 A)  $10a - 4b$       B)  $22a - 8b$       C)  $-8a - 8b$       D)  $12a + 2b$

- 256)  $6\{3y^2 + 7[2y^2 - (y + z^2)]\}$  256) \_\_\_\_\_  
 A)  $102y^2 - 6y + 6z^2$       B)  $60y^2 - 42y$   
 C)  $102y^2 - 42y - 42z^2$       D)  $32y^2 - 7y - 7z^2$



**Simplify.**

- 257)  $-1.6 + 0.9 + (-0.6) + 0.8$  257) \_\_\_\_\_  
A) 0.7 B) -0.5 C) 2.7 D) 4.1
- 258)  $-10 - (-8)$  258) \_\_\_\_\_  
A) 18 B) -2 C) -18 D) 2
- 259)  $\left(\frac{4}{7}\right)^4$  259) \_\_\_\_\_  
A)  $\frac{2}{7}$  B)  $\frac{16}{7}$  C)  $\frac{16}{7}$  D) 7
- 260)  $-3(3)(-1)(3)$  260) \_\_\_\_\_  
A) -27 B) 2 C) 27 D) -2
- 261)  $-65 \div (-5)$  261) \_\_\_\_\_  
A) 3 B) -13 C) 13 D)  $\frac{1}{13}$
- 262)  $-2.4 \div 0.06$  262) \_\_\_\_\_  
A)  $\frac{1}{40}$  B) -23.4 C) -40 D) -2.34
- 263)  $(-6)^3$  263) \_\_\_\_\_  
A) -18 B) -216 C) 18 D) 216
- 264)  $\left(\frac{3}{7}\right)^3$  264) \_\_\_\_\_  
A)  $\frac{27}{7}$  B)  $\frac{3}{3^7}$  C)  $\frac{343}{27}$  D)  $\frac{27}{343}$
- 265)  $(0.5)^4$  265) \_\_\_\_\_  
A) 625 B) 2 C) 0.125 D) 0.063
- 266)  $(1.5)^3$  266) \_\_\_\_\_  
A) 3.375 B) 2.25 C) 4.096 D) 4.5
- 267)  $7.2 - 6.2 \div 2.5 \cdot (0.2 - 0.6)^2$  267) \_\_\_\_\_  
A) 6.8032 B) 2.5 C) -8.3 D) 0.064
- 268)  $3 \cdot 3 - 3(4)^3 \div (-2)$  268) \_\_\_\_\_  
A) 873 B) 105 C) -192 D)  $\frac{183}{2}$
- 269)  $8x(4x - 6y - 8)$  269) \_\_\_\_\_  
A)  $32x^2 - 6y - 8$  B)  $32x^2 - 48xy - 64x$   
C)  $4x - 6y - 64x$  D)  $32x - 48y - 64$
- 270)  $3xy^2(2x + 3y - 2xy)$  270) \_\_\_\_\_

A)  $6x^2y^2 + 9xy^3 - 6x^2y^3$

B)  $6x^2y^2 + 3y - 2xy$

C)  $6x^2y + 9xy^2 - 6x^2y^2$

D)  $6xy^2 + 9y^3 - 6xy^3$

271)  $6ab - \frac{1}{4}a^2b - \frac{3}{4}ab - \frac{7}{4}a^2b$

271) \_\_\_\_\_

A)  $\frac{21}{4}ab - \frac{1}{4}a^2b - \frac{7}{4}ab^2$

B)  $6ab - 2a^2b - \frac{3}{4}ab^2$

C)  $\frac{21}{4}ab - 2a^2b$

D)  $\frac{13}{4}a^2b^2$

272)  $7(4 - y) - 7(-5 + 3y)$

272) \_\_\_\_\_

A)  $2y + 63$

B)  $-10y + 63$

C)  $-28y + 63$

D)  $14y + 63$

273)  $5.3x^2y - 1.2xy^2 - 3.4x^2y + 3xy^2 + 2.8x^2y$

273) \_\_\_\_\_

A)  $4.7x^2y + 4.2xy^2$

B)  $11.5x^2y + 1.8xy^2$

C)  $4.7x^2y - 1.8xy^2$

D)  $4.7x^2y + 1.8xy^2$

274)  $-(2w - 3) + 4(3w + 5)$

274) \_\_\_\_\_

A)  $14w + 8$

B)  $-10w + 17$

C)  $14w + 2$

D)  $10w + 23$

**Evaluate for the value of the variable(s) indicated.**

275)  $3x^2 + 7x + 6$  for  $x = -2$

275) \_\_\_\_\_

A) 4

B) -20

C) 8

D) 32

276)  $x^3 - 5x^2y + 3y - 5$  for  $x = 2$  and  $y = -3$

276) \_\_\_\_\_

A) 54

B) -306

C) 42

D) -66

277)  $-4a + 5b$  for  $a = \frac{1}{3}$  and  $b = -\frac{1}{2}$

277) \_\_\_\_\_

A)  $\frac{11}{6}$

B)  $\frac{23}{6}$

C)  $\frac{11}{60}$

D)  $\frac{7}{6}$

**Solve the problem.**

278) A window is in the shape of a trapezoid. The altitude of the window is 33 inches. One base measures 30 inches, and the other base measures 60 inches. What is the area of the window?

278) \_\_\_\_\_

A) 59,400 square inches

B) 2970 square inches

C) 1485 square inches

D) 495 square inches

279) Find the total cost of tiling a triangular area having a base length of 9 meters and a height of 7 meters if it costs \$4.37 to tile one square meter. Round to the nearest cent.

279) \_\_\_\_\_

A) \$63.00

B) \$69.92

C) \$275.31

D) \$137.66

280) If you are traveling 63 miles per hour on a highway in Canada, how fast are you traveling in kilometers per hour? (Use  $k = 1.61r$ , where  $r$  = rate in miles per hour and  $k$  = rate in kilometers per hour.)

280) \_\_\_\_\_

- A) 39.1 kilometers per hour
- C) 101.4 kilometers per hour

- B) 64.6 kilometers per hour
- D) 95.1 kilometers per hour

**Simplify.**

281)  $2[a - b(6a - 6b) - 6b^2]$

A)  $2a - 6ab$

C)  $2a - 12ab - 24b^2$

B)  $2a - 12ab$

D)  $2a - 12b - 12ab - 12b^2$

281) \_\_\_\_\_

282)  $2a - \{6b - 4[a - (b + 2a)]\}$

A)  $6a - 2b$

C)  $14a - 10b$

B)  $-2a - 10b$

D)  $8a - 3b$

282) \_\_\_\_\_

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

- 52) D
- 53) A
- 54) B
- 55) A
- 56) D
- 57) B
- 58) D
- 59) C
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- 64) D
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- 66) C
- 67) C
- 68) A
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- 70) C
- 71) D
- 72) B
- 73) B
- 74) A
- 75) D
- 76) C
- 77) B
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- 79) A
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- 81) C
- 82) A
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260) C  
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274) D  
275) A  
276) A  
277) B  
278) C  
279) D  
280) C  
281) B  
282) B