

# Chapter 1 Review

(1.2) Determine the place value of the digit 4 in each whole number.

1. 7640

2. 46,200,120

Write each whole number in words.

3. 7640

4. 46,200,120

Write each whole number in expanded form.

5. 3158

6. 403,225,000

Write each whole number in standard form.

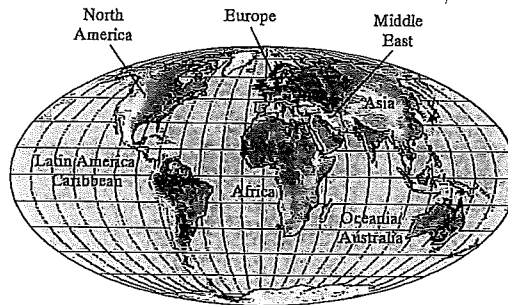
7. Eighty-one thousand, nine hundred

8. Six billion, three hundred four million

The following table shows the Internet use of world regions. Use this table to answer Exercises 9 through 12.

(Source: International Telecommunications Union)

Internet Use by World Regions			
World Region	2000	2004	2008
Africa	4,514,400	21,371,600	51,065,630
Asia	114,304,000	295,852,200	578,538,257
Europe	105,096,093	241,208,100	384,633,765
Middle East	3,284,800	28,917,600	41,939,200
North America	108,096,800	217,835,900	248,241,969
Latin America/ Caribbean	18,068,919	50,661,500	139,009,209
Oceania/ Australia	7,620,480	11,805,500	20,204,331



9. Find the number of Internet users in 2008 in Europe.

10. Find the number of Internet users in Oceania/Australia in 2004.

11. Which world region had the smallest number of Internet users in 2000?

12. Which world region had the greatest number of Internet users in 2008?

(1.3) Add.

13.  $17 + 46$

14.  $28 + 39$

15.  $25 + 8 + 15$

16.  $27 + 9 + 41$

17.  $932 + 24$

18.  $819 + 21$

19.  $567 + 7383$

20.  $463 + 6787$

21.  $91 + 3623 + 497$

22.  $82 + 1647 + 238$

Solve.

23. Find the sum of 86, 331, and 909.

24. Find the sum of 49, 529, and 308.

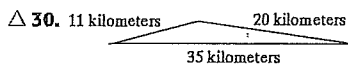
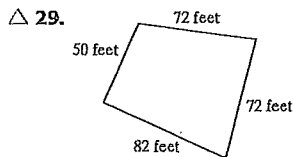
5. What is 26,481 increased by 865?

26. What is 38,556 increased by 744?

27. The distance from Chicago to New York City is 714 miles. The distance from New York City to New Delhi, India, is 7318 miles. Find the total distance from Chicago to New Delhi if traveling by air through New York City.

28. Susan Summerline earned salaries of \$62,589, \$65,340, and \$69,770 during the years 2002, 2003, and 2004, respectively. Find her total earnings during those three years.

Find the perimeter of each figure.



(1.4) Subtract and then check.

31.  $93 - 79$

32.  $61 - 27$

33.  $462 - 397$

34.  $583 - 279$

35.  $4000 - 86$

36.  $8000 - 92$

Solve.

37. Subtract 7965 from 25,862.

38. Subtract 4349 from 39,007.

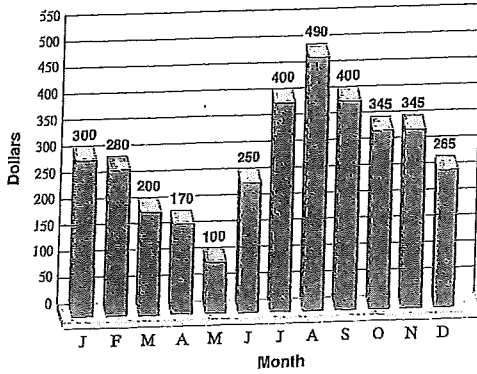
39. Find the increase in population for San Antonio, Texas, from 2000 (population: 1,144,646) to 2007 (population: 1,328,984).

40. Find the decrease in population for Philadelphia, Pennsylvania, from 2000 (population: 1,517,550) to 2007 (population: 1,491,812).

41. Bob Roma is proofreading the Yellow Pages for his county. If he has finished 315 pages of the total 712 pages, how many pages does he have left to proof-read?

42. Shelly Winters bought a new car listed at \$28,425. She received a discount of \$1599 and a factory rebate of \$1200. Find how much she paid for the car.

The following bar graph shows the monthly savings account balance for a freshman attending a local community college. Use this graph to answer Exercises 43 through 46.



43. During what month was the balance the least?

44. During what month was the balance the greatest?

45. By how much did his balance decrease from February to April?

46. By how much did his balance increase from June to August?

(1.5) Round to the given place.

47. 93 to the nearest ten

48. 45 to the nearest ten

49. 467 to the nearest ten

50. 493 to the nearest hundred

51. 4832 to the nearest hundred

52. 57,534 to the nearest thousand

53. 49,683,712 to the nearest million

54. 768,542 to the nearest hundred-thousand

55. In 2008, 65,025,901 Americans voted for one of the major candidates for president. Round this number to the nearest million. (Source: CNN)

56. In 2007, there were 93,295 public elementary and secondary schools in the United States. Round this number to the nearest thousand. (Source: National Center for Educational Statistics)

Estimate the sum or difference by rounding each number to the nearest hundred.

57.  $4892 + 647 + 1876$

58.  $5925 - 1787$

59. A group of students took a week-long driving trip and traveled 628, 290, 172, 58, 508, 445, and 383 miles on seven consecutive days. Round each distance to the nearest hundred to estimate the distance they traveled.

60. According to the city population table, the 2007 population of Houston, Texas, was 2,208,180, and for San Diego, California, it was 1,336,865. Round each number to the nearest hundred-thousand and estimate how much larger Houston is than San Diego.

(1.6) Multiply.

$$\begin{array}{r} 61. \quad 273 \\ \times \quad 7 \\ \hline \end{array}$$

$$\begin{array}{r} 62. \quad 349 \\ \times \quad 4 \\ \hline \end{array}$$

$$\begin{array}{r} 63. \quad 47 \\ \times 30 \\ \hline \end{array}$$

$$\begin{array}{r} 64. \quad 69 \\ \times 42 \\ \hline \end{array}$$

65.  $20(8)(5)$

66.  $25(9)(4)$

67. 
$$\begin{array}{r} 48 \\ \times 77 \\ \hline \end{array}$$

68. 
$$\begin{array}{r} 77 \\ \times 22 \\ \hline \end{array}$$

69.  $49 \cdot 49 \cdot 0$

70.  $62 \cdot 88 \cdot 0$

71. 
$$\begin{array}{r} 586 \\ \times 29 \\ \hline \end{array}$$

72. 
$$\begin{array}{r} 242 \\ \times 37 \\ \hline \end{array}$$

73. 
$$\begin{array}{r} 642 \\ \times 177 \\ \hline \end{array}$$

74. 
$$\begin{array}{r} 347 \\ \times 129 \\ \hline \end{array}$$

75. 
$$\begin{array}{r} 1026 \\ \times 401 \\ \hline \end{array}$$

76. 
$$\begin{array}{r} 2107 \\ \times 302 \\ \hline \end{array}$$

77.  $375 \cdot 1000$

78.  $108 \cdot 1000$

79.  $30 \cdot 400$

80.  $50 \cdot 700$

81.  $1700 \cdot 3000$

82.  $1900 \cdot 4000$

*Solve.*

83. Find the product of 5 and 230.

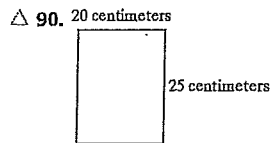
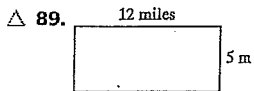
84. Find the product of 6 and 820.

85. Multiply 9 and 12.

86. Multiply 8 and 14.

87. One ounce of Swiss cheese contains 8 grams of fat. How many grams of fat are in 3 ounces of Swiss cheese? (Source: *Home and Garden Bulletin No. 72*, U.S. Department of Agriculture)

88. The cost for a South Dakota resident to attend Black Hills State University full-time is \$6112 per semester. Determine the cost for 20 students to attend full-time. (Source: Black Hills State University)

*Find the area of each rectangle.**(1.7) Divide and then check.*

91.  $\frac{18}{6}$

92.  $\frac{36}{9}$

93.  $42 \div 7$

94.  $35 \div 5$

95.  $27 \div 5$

96.  $18 \div 4$

97.  $16 \div 0$

98.  $0 \div 8$

99.  $9 \div 9$

100.  $10 \div 1$

101.  $0 \div 668$

102.  $918 \div 0$

103.  $5 \overline{)167}$

104.  $8 \overline{)159}$

105.  $26 \overline{)626}$

106.  $19 \overline{)680}$

107.  $47 \overline{)23,792}$

108.  $53 \overline{)48,111}$

109.  $207 \overline{)578,291}$

110.  $306 \overline{)615,732}$

*Solve.*

111. Find the quotient of 92 and 5.

112. Find the quotient of 86 and 4.

113. One foot is 12 inches. Find how many feet there are in 5496 inches.

114. One mile is 1760 yards. Find how many miles there are in 22,880 yards.

115. Find the average of the numbers 76, 49, 32, and 47.

116. Find the average of the numbers 23, 85, 62, and 66.

**(1.8)** *Solve.*

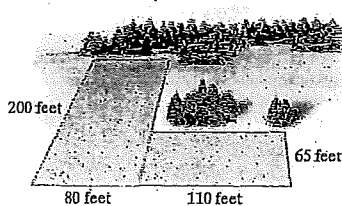
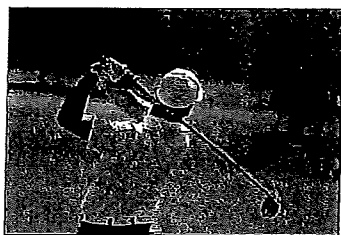
117. A box can hold 24 cans of corn. How many boxes can be filled with 648 cans of corn?

118. If a ticket to a movie costs \$6, how much do 32 tickets cost?

119. Aspirin was 100 years old in 1997 and was the first U.S. drug made in tablet form. Today, people take 11 billion tablets a year for heart disease prevention and 4 billion tablets a year for headaches. How many more tablets are taken a year for heart disease prevention? (*Source:* Bayer Market Research)

120. The cost to banks when a person uses an ATM (Automatic Teller Machine) is 27¢. The cost to banks when a person deposits a check with a teller is 48¢ more. How much is this cost?

121. A golf pro orders shirts for the company sponsoring a local charity golfing event. Shirts size large cost \$32 while shirts size extra-large cost \$38. If 15 large shirts and 11 extra-large shirts are ordered, find the cost.

122. Two rectangular pieces of land are purchased: one that measures 65 feet by 110 feet and one that measures 80 feet by 200 feet. Find the total area of land purchased. (*Hint:* Find the area of each rectangle, then add.)**(1.9)** *Simplify.*

123.  $7^2$

124.  $5^3$

125.  $5 \cdot 3^2$

126.  $4 \cdot 10^2$

127.  $18 \div 3 + 7$

128.  $12 - 8 \div 4$

129.  $\frac{5(6^2 - 3)}{3^2 + 2}$

130.  $\frac{7(16 - 8)}{2^3}$

31.  $48 \div 8 \cdot 2$

132.  $27 \div 9 \cdot 3$

133.  $2 + 3[1^5 + (20 - 17) \cdot 3] + 5 \cdot 2$

134.  $21 - [2^4 - (7 - 5) - 10] + 8 \cdot 2$

*Simplify. (These exercises contain square roots.)*

135.  $\sqrt{81}$

136.  $\sqrt{4}$

137.  $\sqrt{1}$

138.  $\sqrt{0}$

139.  $4 \cdot \sqrt{25} - 2 \cdot 7$

140.  $8 \cdot \sqrt{49} - 3 \cdot 9$

141.  $(\sqrt{36} - \sqrt{16})^3 \cdot [10^2 \div (3 + 17)]$

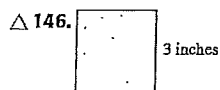
142.  $(\sqrt{49} - \sqrt{25})^3 \cdot [9^2 \div (2 + 7)]$

143.  $\frac{5 \cdot 7 - 3 \cdot \sqrt{25}}{2(\sqrt{121} - 3^2)}$

144.  $\frac{4 \cdot 8 - 1 \cdot \sqrt{121}}{3(\sqrt{81} - 2^3)}$

*Find the area of each square.*

$\Delta$  145. A square with side length of 7 meters.



## Mixed Review

*Perform the indicated operations.*

147.  $375 - 68$

148.  $729 - 47$

149.  $723 \times 3$

150.  $629 \times 4$

151.  $264 + 39 + 598$

152.  $593 + 52 + 766$

153.  $13 \overline{)5962}$

154.  $18 \overline{)4267}$

155.  $1968 \times 36$

156.  $5324 \times 18$

157.  $2000 - 356$

158.  $9000 - 519$

Round to the given place.

159. 736 to the nearest ten

160. 258,371 to the nearest thousand

161. 1999 to the nearest hundred

162. 44,499 to the nearest ten thousand

Write each whole number in words.

163. 36,911

164. 154,863

Write each whole number in standard form.

165. Seventy thousand, nine hundred forty-three

166. Forty-three thousand, four hundred one

Simplify.

167.  $4^3$

168.  $5^3$

169.  $\sqrt{144}$

170.  $\sqrt{100}$

171.  $24 \div 4 \cdot 2$

172.  $\sqrt{256} - 3 \cdot 5$

173.  $\frac{8(7 - 4) - 10}{4^2 - 3^2}$

174.  $\frac{(15 + \sqrt{9}) \cdot (8 - 5)}{2^3 + 1}$

Solve.

175. 36 divided by 9 is what number?

176. What is the product of 2 and 12?

177. 16 increased by 8 is what number?

178. 7 subtracted from 21 is what number?

The following table shows the average Major League Baseball salaries (rounded to the nearest thousand) for the five teams with the largest payrolls for 2008 and 2009. Use this table to answer Exercises 179 and 180. (Source: CBS Sports)

Team	2009 Average Salary	2008 Average Salary
NY Yankees	\$7,748,000	\$6,745,000
NY Mets	\$4,849,000	\$4,610,000
Chicago Cubs	\$5,402,000	\$4,392,000
Boston Red Sox	\$4,090,000	\$4,766,000
Detroit Tigers	\$4,110,000	\$4,623,000

179. How much less was the average salary for a Detroit Tiger in 2009 than in 2008?

180. The average salary for all teams in Major League Baseball for 2009 was \$3,260,000. How much more was the average Yankee pay than the average pay across the major leagues?

181. A manufacturer of drinking glasses ships his delicate stock in special boxes that can hold 32 glasses. If 1714 glasses are manufactured, how many full boxes are filled? Are there any glasses left over?

182. A teacher orders 2 small white boards for \$27 each and 8 boxes of dry erase pens for \$4 each. What is her total bill before taxes?

