Cumulative Review for Chapters 8 to 10

Concepts and Skills

Mark X to show where each decimal is located on the number line. (Lesson 8.1)

1. 0.032
2. 0.047

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Complete. (Lesson 8.1)

3. 3 tenths 5 hundredths = _________ thousandths
4. 803 thousandths = _________ tenths _________ thousandths
5. 0.835 = 8 tenths 3 hundredths _________ thousandths

Write the equivalent decimal. (Lesson 8.1)

6. 8 ones and 214 thousandths = _________
7. 1,180 thousandths = _________
8. $\frac{60}{1000} = _________$
9. $\frac{6050}{1000} = _________$
4.526 can be written in expanded form as $4 + 0.5 + 0.02 + 0.006$.

Write each decimal in expanded notation. *(Lesson 8.1)*

10. $0.329 = \underline{\text{_______}} + \underline{\text{_______}} + \underline{\text{_______}}$

11. $20.125 = \underline{\text{_______}} + \underline{\text{_______}} + \underline{\text{_______}} + \underline{\text{_______}}$

Complete. *(Lesson 8.1)*

In 9.168,

12. the digit 6 is in the ______ place.

13. the value of the digit 8 is ______.

14. the digit 1 stands for ______.

Compare. Write $>,$ $<,$ or $=$. *(Lesson 8.2)*

15. $1.07 \bigcirc 1.7$

16. $3.562 \bigcirc 3.526$

17. $15.4 \bigcirc 15.40$

Order the decimals. *(Lesson 8.2)*

18. $2.08, \quad 1.973, \quad 6.1$

Begin with the least:

19. $1.567, \quad 1.667, \quad 1.376$

Begin with the greatest:
Fill in the blanks. (Lesson 8.2)

20. The mass of a strand of hair is 0.179 gram.
   Round the mass to the nearest hundredth of a gram.
   0.179 gram rounds to ________ gram.

21. The length of a rope is 2.589 yards.
   Round the length to the nearest tenth of a yard.
   2.589 yards rounds to ________ yards.

Write each decimal as a mixed number in simplest form. (Lesson 8.3)

22. 6.2 = ________

23. 2.16 = ________

Multiply. (Lessons 9.1 and 9.2)

24. 29.3 × 8 = ________

25. 12.08 × 5 = ________

26. 86.4 × 10 = ________

27. 13.5 × 30 = ________

28. 73.96 × 100 = ________

29. 6.2 × 700 = ________
30.  $9.34 \times 1,000 = \underline{9340}$  

31.  $25.6 \times 9,000 = \underline{230400}$

Multiply. (Lesson 9.2)

32.  $7.8 \times 10^2 = \underline{780}$  

33.  $0.05 \times 10^3 = \underline{50}$

34.  $0.178 \times 10^2 = \underline{17.8}$  

35.  $9.5 \times 10^3 = \underline{9500}$

36.  $20.1 \times 10^2 = \underline{2010}$  

37.  $1.206 \times 10^3 = \underline{1206}$
Divide. (Lesson 9.3)

38. \(0.5 \div 5 = \) 
39. \(0.63 \div 9 = \)

40. \(36.8 \div 4 = \) 
41. \(96.3 \div 5 = \)

42. \(3.36 \div 4 = \) 
43. \(1.92 \div 8 = \)

Divide. Round the quotient to the nearest tenth and nearest hundredth. (Lesson 9.3)

44. \(19 \div 7 = \) to the nearest tenth

\(19 \div 7 = \) to the nearest hundredth
Divide. (Lesson 9.4)

45. \(38 \div 10 = \) ________  
46. \(19.6 \div 20 = \) ________

47. \(4.5 \div 100 = \) ________  
48. \(375 \div 300 = \) ________

49. \(5,030 \div 1,000 = \) ________  
50. \(2,506 \div 7,000 = \) ________

Estimate each answer by rounding the numbers to an appropriate place. (Lesson 9.5)

51. \(91.2 + 25.9\)  
52. \(37.4 - 11.7\)

53. \(21.63 \times 5\)  
54. \(7.55 \div 8\)
Convert. (Lesson 9.6)

55. \(3.5 \text{ m} = \underline{\text{_______}} \text{ cm}\)

56. \(61.9 \text{ m} = \underline{\text{_______}} \text{ m} \underline{\text{_______}} \text{ cm}\)

57. \(9.072 \text{ km} = \underline{\text{_______}} \text{ m}\)

58. \(15.8 \text{ km} = \underline{\text{_______}} \text{ km} \underline{\text{_______}} \text{ m}\)

59. \(0.07 \text{ kg} = \underline{\text{_______}} \text{ g}\)

60. \(59.06 \text{ kg} = \underline{\text{_______}} \text{ kg} \underline{\text{_______}} \text{ g}\)

61. \(70.4 \text{ L} = \underline{\text{_______}} \text{ mL}\)

62. \(2.007 \text{ L} = \underline{\text{_______}} \text{ L} \underline{\text{_______}} \text{ mL}\)

Convert. (Lesson 9.6)

63. \(73.9 \text{ cm} = \underline{\text{_______}} \text{ m}\)

64. \(5 \text{ m} 12 \text{ cm} = \underline{\text{_______}} \text{ m}\)

65. \(79 \text{ m} = \underline{\text{_______}} \text{ km}\)

66. \(40 \text{ km} 56 \text{ m} = \underline{\text{_______}} \text{ km}\)

67. \(6 \text{ g} = \underline{\text{_______}} \text{ kg}\)

68. \(81,500 \text{ mL} = \underline{\text{_______}} \text{ L}\)
Write each ratio in three ways. Complete the table. (Lesson 10.1)

<table>
<thead>
<tr>
<th></th>
<th>As a Fraction</th>
<th>As a Percent</th>
<th>As a Decimal</th>
</tr>
</thead>
<tbody>
<tr>
<td>69.</td>
<td>57 out of 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70.</td>
<td>8 out of 10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Express each fraction as a percent. (Lesson 10.2)

71. \[ \frac{88}{200} = \]

72. \[ \frac{204}{400} = \]

73. \[ \frac{6}{20} = \]

74. \[ \frac{7}{50} = \]

75. \[ \frac{13}{20} = \]

76. \[ \frac{16}{25} = \]
Problem Solving
Solve. Show your work.

77. Hazel saves $5.75 each week. How much does she save in 2 weeks?

78. Tyrone spends $23.83 on a book and $9.12 on a wallet. How much does he spend on the two items?

79. Evelyn has 12.7 quarts of fruit punch in a cooler. She pours the fruit punch into glasses. She fills 5 glasses, each with a capacity of 0.36 quart. Then she fills 8 glasses, each with a capacity of 0.52 quart. How much fruit punch is left in the cooler?
Solve. Use models to help you.

80. The total weight of three tables is 16.9 pounds. The first table is twice as heavy as the second table. The weight of the third table is $\frac{1}{3}$ the weight of the second table. What is the weight of the first table?

81. There are 950 seats in a theater. 82% of the seats are occupied. How many seats are not occupied?
Solve. Use models to help you.

82. Rahim spends 10% of his weekly allowance on Monday. On Wednesday, he spends \( \frac{1}{3} \) of the remainder. What percent of his allowance is left at the end of Wednesday?

83. Ms. Jones buys a violin for $860. In addition, she has to pay 7% sales tax. How much does she pay in all?

84. The length of a table is 2.1 meters long. It is 7 times as long as the length of a square paper. What is the perimeter of the paper? Give your answers in centimeters.
Solve. Show your work.

85. The regular price of a television set is $1,200. Albert buys the television set at a discount of 35%. How much does he pay for the television set?

86. A school band gives a year-end concert. It is held in a 400-seat auditorium. Each concert ticket sells for $10, and 85% of the tickets are sold. How much money does the band earn from the sale of the tickets?

87. Mr. Aaron’s luggage weighs 25.97 kilograms. How much more can he pack if he is allowed to bring 30 kilograms? Give your answer in kilograms and grams.