

EXERCISES

For more practice, see *Extra Practice*.

A Practice by Example

Example 1
(page 19)

$$\begin{array}{r} 1. \quad 35.61 \\ + 0.816 \\ \hline \end{array}$$

$$\begin{array}{r} 2. \quad 10.581 \\ - 1.203 \\ \hline \end{array}$$

$$\begin{array}{r} 3. \quad 16.91 \\ \times 2.25 \\ \hline \end{array}$$

$$\begin{array}{r} 4. \quad 15.3 \\ \times 2.6 \\ \hline \end{array}$$

$$5. \quad 15.8 + 38.095$$

$$6. \quad 6.501 - 3.999$$

$$7. \quad 0.95 \times 22.8$$

Example 2
(page 20)

Use compatible numbers to estimate. Exercise 8 has been started for you.

$$8. \quad 46.4 \div 4.75 \rightarrow 45 \div 5 = ?$$

$$9. \quad 392 + 193$$

$$10. \quad 653 - 295$$

$$11. \quad 27 \times 9.98$$

$$12. \quad 36.4 \div 6.2$$

$$13. \quad 73.25 \div 9.43$$

$$14. \quad 23.3 \times 4.2$$

$$15. \quad 30.9 \div 5.1$$

Example 3
(page 20)

Use front-end estimation to estimate each sum to the nearest dollar.

$$\begin{array}{r} 16. \quad \$4.89 \\ + \$3.97 \\ \hline \end{array}$$

$$\begin{array}{r} 17. \quad \$6.15 \\ + \$8.86 \\ \hline \end{array}$$

$$\begin{array}{r} 18. \quad \$14.65 \\ \quad \$27.29 \\ + \$63.85 \\ \hline \end{array}$$






$$\begin{array}{r} 19. \quad \$16.81 \\ \quad \$19.94 \\ + \$11.49 \\ \hline \end{array}$$

B Apply Your Skills

20. Packaging A ball has a mass of 283.5 grams. You want to ship 9 balls in a box. The box has a mass of 595.34 grams. Estimate the total mass.

21. Estimate the total of 3.894 and 5.2.

Nutrition Use the chart. Estimate to the nearest tenth of an ounce.

	One Serving	Sugar Content
	Orange Juice	0.886 oz
	Granola bar	0.273 oz
	Grapes	0.529 oz
	Milk	0.413 oz
	Yogurt	0.98 oz

22. About how much sugar is in a serving of orange juice plus a granola bar?

23. If you ate one of every item in the chart, about how much sugar would you have eaten?

24. About how much more sugar is in a serving of yogurt than in a serving of milk?

25. About how much sugar is in the last three items combined?

Round each number to the place of the underlined digit.

$$26. \quad 1.\underline{3}66$$

$$27. \quad \underline{7}2.418$$

$$28. \quad 5.1\underline{2}51$$

$$29. \quad 2.31\underline{9}6$$

$$30. \quad 30\underline{6}.042$$

$$31. \quad 10.\underline{9}01$$

$$32. \quad 0.\underline{3}45$$

$$33. \quad \underline{1}4.9$$

Estimate each answer by rounding each number to the nearest whole number or by using compatible numbers.

34. $4.29 + 8.89$

35. $11.42 - 7.201$

36. $55.1 \div 8.6$

37. $134.8 - 51.95$

38. 8.56×9.863


39. $23.56 + 33.51$

40. **Writing in Math** The cost for three copies of a book is \$38.85. Estimate the cost for one book. Do you think your estimate is higher or lower than the book's actual cost? Explain.

 41. **Savings** Suppose you saved \$443.75 in one year.

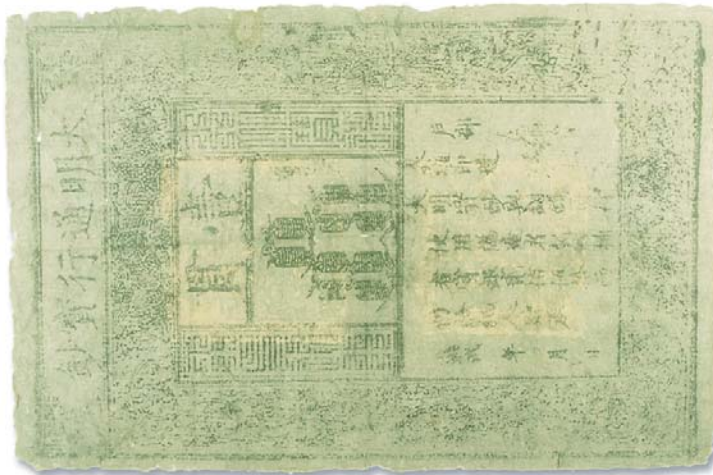
a. Estimate how much you saved each week.

b. **Reasoning** Explain why you chose the method you used in part (a).

 42. **Money** This Chinese kwan note is 92.8 centimeters long. The United States dollar bill is 15.6 centimeters long. About how many times as long as a dollar bill is the kwan note?

Real-World Connection

The largest paper money ever printed was the Chinese kwan note, which was used in the fourteenth century.



Use “clustering” to estimate each sum. For example, the numbers 4.8, 5.2, and 4.9 cluster around the whole number 5. You can estimate their sum by multiplying 3 and 5 for a total of 15.

43. $5.879 + 6.3 + 5.6 + 6.09$

44. $\$7.99 + \$8.14 + \$7.85$

45. $2.6 + 3.3 + 2.8 + 2.91 + 3.14$

46. $\$39.81 + \$42 + \$38.06$

Challenge



Need Help?

4 cups = 1 quart
4 quarts = 1 gallon

47. **Open-Ended** A number rounded to the nearest tenth is 10.6. Rounded to the nearest hundredth, it is 10.65. What could the number be?

48. **Writing in Math** Your class is bringing apple juice to the fall school party. You know that 268 people are invited. You think that each person will drink one cup of juice. Explain the steps you would take to estimate how many gallons of apple juice your class should buy.



Test Prep

Multiple Choice

49. Between which two numbers is the quotient $18.7 \div 5$?
A. 2 and 3 B. 3 and 4 C. 4 and 5 D. 5 and 6
50. Which sum has an estimate of \$22?
F. $\$4.22 + \$10.85 + \$8.97$ G. $\$2.80 + \$13.75 + \$4.66$
H. $\$6.05 + \$7.86 + \$10.22$ I. $\$15.32 + \$9.63 + \$4.45$
51. Tom has \$20 to spend. He wants to buy a book for \$7.29, film for \$12.95, a marker for \$3.95, and a magazine for \$6.25. He can buy some items and have less than \$1.00 left. Which items could he buy?
A. book, marker, and magazine B. film and magazine
C. book and film D. film and marker
52. Yvonne earns \$38.25 in one week by baby-sitting. She earns \$4.75 per hour. Estimate the number of hours she works.
F. 8 G. 33.5 H. 43 I. 200



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Mixed Review

Lesson 1-3

Use $<$, $=$, or $>$ to complete each statement.

53. $0.112 \blacksquare 0.121$ 54. $0.0009 \blacksquare 0.001$ 55. $0.9985 \blacksquare 0.998$

Lesson 1-2

Write each decimal in standard form.

56. seven and eight tenths 57. twenty-three hundredths
58. two hundred eight and one tenth 59. thirty-eight ten-thousandths