KEY CONCEPT OVERVIEW

In Lessons 15 and 16, students express the value of pennies, dimes, and quarters in **decimal form** and as fractional parts of a dollar. Students learn to write money amounts by using a decimal point and a dollar sign, and they determine money totals by expressing dollars and cents in **unit form**. (See Sample Problem.) It is important to note that, in these lessons, students do NOT learn to add money amounts by lining up the dollar signs and decimal points.

You can expect to see homework that asks your child to do the following:

- Express the value of given numbers of pennies, dimes, and quarters in decimal form and in **fraction form**.
- Determine the total amount of money by using unit form (dollars and cents) and then express that total in fraction form and in decimal form.
- Use the **RDW process** to solve word problems involving money by adding like units (i.e., adding dollars to dollars and cents to cents).

SAMPLE PROBLEM *(From Lesson 15)*

Solve. Express the answer in decimal form.

$3\text{ dollars } 4\text{ dimes} + 2\text{ dollars }1\text{ quarter }3\text{ dimes}$

\[3\text{ dollars }40\text{ cents} + 2\text{ dollars }55\text{ cents} = 5\text{ dollars }95\text{ cents} = $5.95\]
HOW YOU CAN HELP AT HOME

- Gather some quarters, dimes, and pennies. Ask your child to determine the value of different combinations of coins. Ask her to express the value as a decimal number and as a fraction of a dollar. Extend the activity by using dollar bills as well. (NOTE: Nickels are not used because they represent $\frac{1}{20}$ of a dollar. Twentieths are beyond the fourth-grade standard.)

- Ask your child to solve the following word problem by using a tape diagram and the RDW process: Sadie’s lunch cost 5 dollars 27 cents, and William’s lunch cost 6 dollars 14 cents. How much more did William’s lunch cost than Sadie’s? (87 cents) Keep in mind that, when computing with money, students use unit form. In this case, it is necessary for your child to rename 6 dollars 14 cents as 5 dollars 114 cents before he can subtract the 5 dollars 27 cents. Alternatively, he can rename each amount as cents, and then he can subtract by using the algorithm.

TERMS

**Decimal form:** A number written in the form of a decimal. For example, 7 hundredths in decimal form is 0.07.

**Fraction form:** A number written in the form of a fraction. For example, 7 hundredths in fraction form is $\frac{7}{100}$.

**RDW process:** A three-step process used in solving word problems that requires students to 1) read the problem for understanding, 2) draw a picture or model, and 3) write an equation and a statement of their answer.

**Unit form:** A number expressed in terms of its units. For example, in unit form, $4.85$ is 4 dollars 85 cents.