

Sample Lesson

Objectives point out the skills to teach in the lesson.

The correlated Worktext pages and REVIEWS pages are listed at the top of each lesson.

Encourage the student's understanding of math by asking questions (interactive inductive teaching) and promoting critical thinking.

Materials list items to collect or prepare ahead of time.

Notes contain helpful information for the teacher. They include the location of the Enrichment pages and ReTeaching pages on the Teacher's Toolkit CD.

Practice and Review provides activities for practicing skills—such as measurement equivalents and fact memorization—and for reviewing concepts.

Lesson 52	Worktext pp. 129–30, 136	Correlated Math Reviews pp. 95–96
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Objectives

- Add decimals
- Subtract decimals
- Solve decimal word problems

Teacher Materials

- Place Value Kit
- Multiplication flashcards: 12 as a factor and previously reviewed multiplication facts

Student Materials

- Decimal Place Value Mat
- Place Value Kit

Notes

In this chapter, the red side (the back) of the hundreds will be referred to as the ones, the orange side of the tens as the tenths, and the purple side of the ones as the hundredths. The Tenth's Mat is a white square divided into tenths. The Tenth's Square is the orange back of one of the green Hundreds, divided into tenths.

Preview the ReTeaching pages 22–25 and the Enrichment pages 35–38 located on the Teacher's Toolkit CD.

Practice and Review

1,000 more/1,000 less; 10,000 more/10,000 less

Write 4- and 5-digit numbers for display. Choose students to mentally determine the number that is 1,000 more, 1,000 less, 10,000 more, or 10,000 less.

Multiplication facts: 12 as a factor

Introduce the Lesson

Scientists have identified two types of coral: stony coral and soft coral. Each soft coral has 8 fringed tentacles, but each stony coral has tentacles that are in multiples of 6. A large group of coral is called a *colony*. Limestone skeletons of coral in the colony form a coral reef or ridge. A famous coral reef, the Great Barrier Reef, stretches for 1,250 miles along the northeast coast of Australia and extends over 100 miles from shore. People from all over the world visit this coral ridge to explore and study it and to enjoy the beauty of God's creation. [Bible Promise: I. God as Master]

Teach for Understanding

Add decimals

- Distribute the Decimal Place Value Mats and the Place Value Kits. Write $1.4 + 3.6 = \underline{\quad}$ for display.
 - > In this addition equation, what do the numbers to the right of the decimal points represent? *parts of a whole*
 - > What is the difference between adding decimals and numbers that you have added in the past? *Answers may vary, but elicit that when you add decimals you are adding whole numbers and parts of a whole instead of adding just whole numbers.*
- Draw for display a Decimal Place Value frame labeled *Ones, Tenth's Hundredths*. Direct each student to show the first addend near the top of his mat and the second

addend at the bottom of his mat as you do the same in the frame.

- Write $1.4 + 3.6$ in vertical form beside the equation; align the decimal points. Demonstrate each step in solving the problem.

> Which place do you add first? *Tenths*

Instruct each student to move all the tenths together on his mat.

> What is 4 tenths + 6 tenths? *10 tenths*

> Are there enough tenths to rename them as 1 one? *yes*

Direct the students to remove 10 tenths from the Tenth's place and to place 1 one at the top of the Ones place.

> How many tenths remain? *0*

Write 0 in the Tenth's place of the problem and 1 above the Ones place.

> Why did I write a 1 above the Ones place? *It represents the 10 tenths that were renamed as 1 one.*

> What do you add next? *ones*

Instruct each student to move all the ones together.

> What is 1 one + 1 one + 3 ones? *5 ones*

Write 5 in the Ones place of the problem. Write the decimal point in the answer. Remind the students that the decimal point is needed to separate the whole numbers from the parts of the whole.

> What does $1.4 + 3.6$ equal? *5.0 or 5*

- Complete the equation.

López and his men found 1.83 pounds of gold and 2.54 pounds of silver on a sunken ship. How many pounds of precious metal did they find in all?

> What is the question asking you to find? *how many pounds of precious metal López and his men found*

> What information is given? *They found 1.83 pounds of gold and 2.54 pounds of silver.*

> What operation do you use to find the total amount of precious metal that they found? *addition*

> What equation can you write? *$1.83 + 2.54 = \underline{\quad}$*

- Write $1.83 + 2.54 = \underline{\quad}$ for display. Guide the students in solving the equation; use a procedure similar to the one used to solve the previous equation. Demonstrate each step.

> What is $1.83 + 2.54$? *4.37*

> What measurement does 1.83 represent? *pounds 2.54?*

pounds

> Since both addends represent a number of pounds, what would you label the sum? *pounds*

Complete the equation: *4.37 pounds.*

Subtract decimals

- Write the problem $4.3 - 2.7 = \underline{\quad}$ for display.

> What is the difference between this subtraction equation and subtraction problems you have solved previously? *You are subtracting whole numbers and parts of a whole instead of subtracting just whole numbers.*

> What do you show on your mat first to solve this equation? *4 ones and 3 tenths*

Direct each student to place 4 ones and 3 tenths on his mat as you do the same in the Decimal Place Value frame; leave room at the top to show the renaming.

Introduce the Lesson broadens the student's knowledge and interest in the ocean theme or initiates a discussion to cultivate biblical principles.

Teach for Understanding and Check for Understanding provide effective procedures for explaining math concepts, using manipulatives, and encouraging problem solving.

Worktext pages provide practice of math skills and a tool to evaluate understanding.

The puzzle piece symbol indicates that the activity involves problem solving. The notebook paper symbol indicates that the student should use another sheet of paper to solve the problems or complete the activity.

A Daily Review section in each chapter provides systematic review of skills and concepts in the Worktext.

Extended Activities and Calculator Wise activities, located on the Teacher's Toolkit CD, enhance the lessons with optional reinforcement. Many of the activities can be used in learning centers. Cumulative Review lessons include Exploring Ideas pages that develop the student's thinking skills and Career Link pages that emphasize the value of math knowledge in the workplace.

Add & Subtract Decimals Name _____

Add Decimals

1. Align the decimal points.
2. Add.
3. Rename if needed.
4. Check decimal placement.

Subtract Decimals

1. Align the decimal points.
2. Rename if needed.
3. Subtract.
4. Check decimal placement.

Add.

1.
$$\begin{array}{r} 3.67 \\ +4.52 \\ \hline 8.19 \end{array}$$

2.
$$\begin{array}{r} 5.3 \\ +2.8 \\ \hline 8.1 \end{array}$$

3.
$$\begin{array}{r} \$7.25 \\ +\$9.14 \\ \hline \$16.39 \end{array}$$

4.
$$\begin{array}{r} 59.82 \\ +36.47 \\ \hline 96.29 \end{array}$$

5.
$$\begin{array}{r} 32.69 \\ +8.23 \\ \hline 40.92 \end{array}$$

Subtract.

6.
$$\begin{array}{r} 8.6 \\ -2.9 \\ \hline 5.7 \end{array}$$

7.
$$\begin{array}{r} \$13.95 \\ -\$7.59 \\ \hline \$6.36 \end{array}$$

8.
$$\begin{array}{r} 50.32 \\ -37.85 \\ \hline 12.47 \end{array}$$

9.
$$\begin{array}{r} 7.41 \\ -6.83 \\ \hline 0.58 \end{array}$$

10.
$$\begin{array}{r} 27.63 \\ -18.04 \\ \hline 9.59 \end{array}$$

Add or subtract.

11.
$$\begin{array}{r} 83.04 \\ +65.29 \\ \hline 148.33 \end{array}$$

12.
$$\begin{array}{r} 57.25 \\ -32.84 \\ \hline 24.41 \end{array}$$

13.
$$\begin{array}{r} \$10.95 \\ -\$5.59 \\ \hline \$5.36 \end{array}$$

14.
$$\begin{array}{r} 32.67 \\ +49.20 \\ \hline 81.87 \end{array}$$

15.
$$\begin{array}{r} 3.82 \\ +9.37 \\ \hline 13.19 \end{array}$$

Solve and label. Process and equations may vary.

16. Captain Bailey has 86.3 feet of rope. He needs 39.8 feet to raise the ship's flag. He needs 9.2 feet to secure a chest to the boat. How much rope will he have left?

Workspace

$$\begin{array}{r} 86.3 \\ +9.2 \\ \hline 95.5 \end{array}$$

$$\begin{array}{r} 95.5 \\ -39.8 \\ \hline 55.7 \end{array}$$

$$\begin{array}{r} 55.7 \\ -9.2 \\ \hline 46.5 \end{array}$$

Math 4 Worktext, Chapter 5, Lesson 52 129

Write > or < to compare.

1. 45.25 < 45.70

2. 8.9 < 9.3

3. 14.27 < 13.27

4. 6.89 < 6.80

5. 34.75 < 34.76

Write the decimals from least to greatest.

6. $32.75, 30.19, 31.26, 30.59$
30.19, 30.59, 31.26, 32.75

7. $9.97, 9.71, 9.81, 9.75$
9.71, 9.75, 9.81, 9.97

Add or subtract.

8.
$$\begin{array}{r} 65.97 \\ +23.68 \\ \hline 89.65 \end{array}$$

9.
$$\begin{array}{r} 37.8 \\ +29.5 \\ \hline 67.3 \end{array}$$

10.
$$\begin{array}{r} 58.20 \\ -9.57 \\ \hline 48.63 \end{array}$$

11.
$$\begin{array}{r} \$82.00 \\ -\$25.75 \\ \hline \$56.25 \end{array}$$

12.
$$\begin{array}{r} 23.13 \\ +1.90 \\ \hline 25.03 \end{array}$$

13.
$$\begin{array}{r} \$9.35 \\ +\$3.26 \\ \hline \$12.61 \end{array}$$

14.
$$\begin{array}{r} 64.8 \\ -53.7 \\ \hline 11.1 \end{array}$$

15.
$$\begin{array}{r} 29.83 \\ +18.37 \\ \hline 48.20 \end{array}$$

16.
$$\begin{array}{r} 95.69 \\ -39.72 \\ \hline 55.97 \end{array}$$

17.
$$\begin{array}{r} 3.0 \\ -1.3 \\ \hline 1.7 \end{array}$$

Solve and label.

18. Carlos and two friends ran in a 50-meter dash. Carlos finished in 15.7 seconds. Roberto ran for 16.2 seconds. Juan finished in 15.6 seconds. Who finished the race first?

Juan finished first.

19. Luke bought a ticket to the baseball game for \$15.00. He also bought a glove for \$12.95 and a ball for \$1.79. How much money did Luke spend?

\$15.00 + \$12.95 + \$1.79 = \$29.74

Complete **Daily Review** on page 136.

Math 4 Worktext, Chapter 5, Lesson 52 130

Instruct each student to remove 1 one from the Ones place and place 10 tenths at the top of the Tenths place.

- ▶ **How many ones do you have now?** 3 tenths? 13
- ▶ Cross out the 4 and write 3 above the Ones place of the problem and then cross out the 3 and write 13 above the Tenth's place.
- ▶ **Now what can you do?** Subtract 7 tenths.
- ▶ Direct the students to remove 7 tenths from their mats.
- ▶ **What is 13 tenths - 7 tenths?** 6 tenths
- ▶ Write 6 in the Tenth's place of the problem.
- ▶ **What do you do next?** Subtract the ones.
- ▶ Instruct the students to remove 2 ones from their mats.
- ▶ **What does 3 ones - 2 ones equal?** 1 one
- ▶ Write 1 in the Ones place of the problem.
- ▶ **What else do you need to write in the difference or the answer for this problem? Why?** A decimal point; to separate the whole number from the parts of a whole.

In 1 Corinthians 14:40, Christians are instructed to do all things "decently and in order." While this verse refers to Christians gathering together to discuss the things of the Lord, the principle of doing things decently and in order also applies to math.

Write a decimal point in the answer. Explain that the decimal point may be written while you are solving a problem or after a problem is solved, but that the students should check each problem after solving it to make sure they have written the decimal point in the correct place in the answer.

- ▶ **What is 4.3 - 2.7?** 1.6

2. Complete the equation.

Lesson 52 115

López and his men want to see a beautiful reef located 4.62 miles from where they found gold and silver on a sunken ship. They have already sailed 3.53 miles towards the reef. How much further do they need to sail?

- ▶ **What is the question asking you to find?** how much further they need to sail; how many more miles they need to sail
 - ▶ **What information is given?** The reef was 4.62 miles away, and they have already sailed 3.53 miles.
 - ▶ **What operation do you use to find how much further or how many more miles they need to sail?** subtraction
 - ▶ **What equation can you write?** $4.62 - 3.53 = \underline{\quad}$
3. Write $4.62 - 3.53 = \underline{\quad}$ for display. Guide the students in solving the equation; use a procedure similar to the one used to solve the previous equation. Demonstrate each step.

Worktext pages 129–30, 136 (e)

Extended Activities

The activities that correlate with Chapter 5, including the Calculator Wise activities, are located on the Teacher's Toolkit CD.

Involve the student in active learning by providing manipulatives.

Encourage a Christian worldview by teaching biblical principles using Scripture, Bible Action Truths, and Bible Promises. Appendix pages A3–A5 provide explanations of Bible Action Truths and Bible Promises.