

Dear Parents:

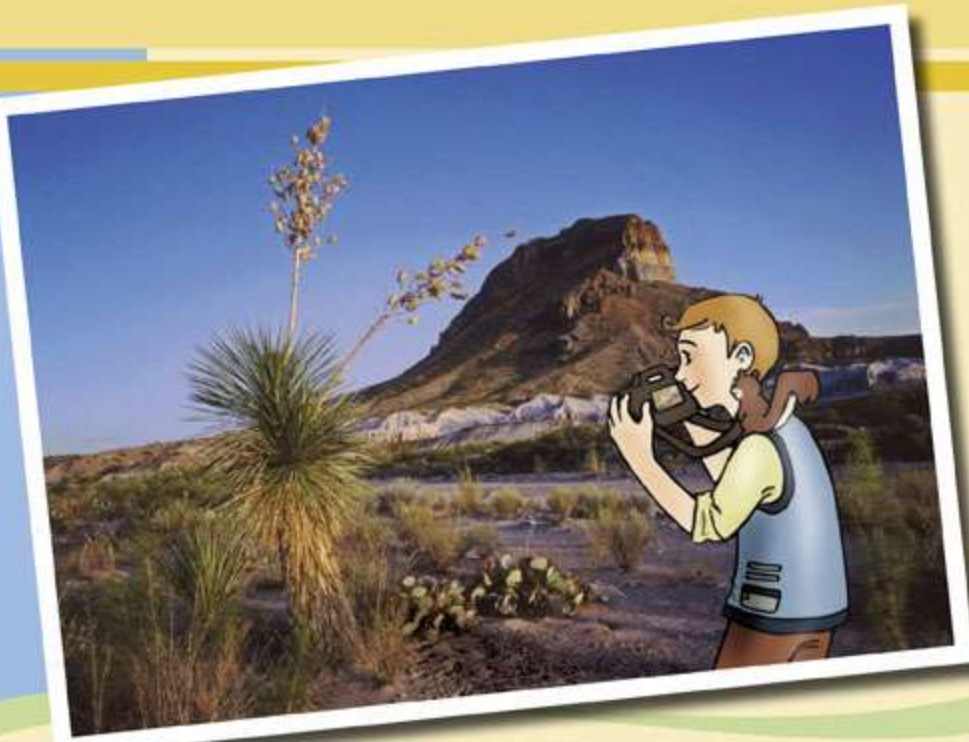
We are pleased to provide a biblically centered comprehensive math program with a Christian worldview that will equip your child with essential math skills. Math concepts are integrated with Christian principles and applications for Christlike character.

Mathematical skills are taught with a balanced approach of computation and problem-solving applications. Automatic recall of math facts is foundational to building mathematical knowledge. Critical-thinking skills are developed through the use of problem-solving strategies. The student is encouraged to explain the process of his solution; such explanation reinforces his knowledge of strategies and procedures. Strategies learned in third grade are reinforced and extended in the upcoming grades to increase mathematical thinking.

The student actively learns and understands new math concepts with a hands-on approach, using manipulatives at the concrete level. Through teacher-guided practice and interactive discussion, the student progresses from the concrete level through the pictorial level to the abstract level. At the abstract level the student can successfully understand and solve problems with fluency without the use of manipulatives or pictures. Mastery of core math concepts is accomplished with a systematic review throughout the year. Daily classroom review for 5–10 minutes, daily review sections on Worktext pages, Chapter Reviews, and Cumulative Reviews provide the practice vital for reinforcement and retention of previously learned skills.

Enjoyment of math is one of the goals for your child in this program. Children who enjoy math and learn its relationship to real-life experiences are more likely to succeed in mastering complex skills. In each chapter your child will observe Hal Watson, a photographer, and his pet squirrel, Horatio, using everyday math skills as they share adventures together at national parks in North America. Your child's teacher will provide creative activities to enhance math skills. As a parent, you can encourage the enjoyment of math by sharing ways that math concepts are used in your family's daily life.





To the Parent

In Chapter 6, your child will study the following concepts about multiplication:

Commutative Property

Identity Property

Zero Property

Strategies

Repeated addition:

2 as a factor—count by 2s; double the other factor

3 as a factor—count by 3s

4 as a factor—count by 4s

5 as a factor—count by 5s

Use a number line.

Use an array.

Hal and Horatio

Hal and Horatio go hiking in Big Bend National Park, hoping to spot a golden eagle. As Hal makes observations nearby, he is alerted to the eagle's presence when it swoops down and captures a rattlesnake. Not only does Hal find the eagle but he also sees its nest and gets photos of its mate and two eaglets.

Math in the Home

Make sets of silverware (fork, spoon, and knife) for the dinner table. Ask your child how many items are in the set (3) and how many sets you will need to set the table for supper. Then ask your child to give you the multiplication equation for the sets made ($_ \times 3 = _$). The same procedure could be followed for the number of items used in making treat bags for friends or in putting together cheer packages for elderly or sick neighbors.

1×2	2×2	2×3	2×4	2×5
2×1		3×2	4×2	5×2
2×6	2×7	2×8	2×9	2×10
6×2	7×2	8×2	9×2	10×2
1×5	3×5	4×5	5×5	5×6
5×1	5×3	5×4		6×5
5×7	5×8	5×9	5×10	
7×5	8×5	9×5	10×5	

The list above shows the facts your child will be memorizing during this chapter. Provide opportunities for your child to practice these facts by using flashcards, or by calling out the related facts orally, or by playing games.

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Multiplication: Repeated Addition

Name _____

Chapter

6

Multiplication is the repeated addition of sets.



$$\begin{array}{ccccccc}
 2 & + & 2 & + & 2 & = & 6 \\
 3 & \text{sets} & \text{of} & 2 & = & 6 \\
 3 & \times & 2 & = & 6 \\
 \downarrow & & \downarrow & & \downarrow & & \downarrow \\
 \text{factor} & \text{times} & \text{factor} & \text{equals} & \text{product} & &
 \end{array}$$

This is read from the baseline up:
3 sets of 2 equals 6
or
3 times 2 equals 6.

$$\begin{array}{r}
 2 \text{ in each set} \\
 \times 3 \text{ sets} \\
 \hline
 6 \text{ total}
 \end{array}$$

Complete the equations. Solve.



$$\begin{array}{l}
 \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad} \\
 \underline{\quad} \text{ sets of } \underline{\quad} = \underline{\quad} \\
 \underline{\quad} \times \underline{\quad} = \underline{\quad}
 \end{array}$$



$$\begin{array}{l}
 \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad} \\
 \underline{\quad} \text{ sets of } \underline{\quad} = \underline{\quad} \\
 \underline{\quad} \times \underline{\quad} = \underline{\quad}
 \end{array}$$



$$\begin{array}{l}
 \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad} \\
 \underline{\quad} \times \underline{\quad} = \underline{\quad}
 \end{array}$$



$$\begin{array}{l}
 \underline{\quad} + \underline{\quad} = \underline{\quad} \\
 \underline{\quad} \times \underline{\quad} = \underline{\quad}
 \end{array}$$



$$\begin{array}{l}
 \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad} \times \underline{\quad} \\
 \begin{array}{l} \text{in each set} \\ \text{sets} \\ \text{total} \end{array}
 \end{array}$$

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Write the equations. Solve.

1.



$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \text{ sets of } \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

2.



$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \text{ sets of } \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

3.



$$\underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

4.



$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

5.



$$\underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

6.



$$\underline{\quad} + \underline{\quad} + \underline{\quad} = \underline{\quad}$$

$$\underline{\quad} \times \underline{\quad} = \underline{\quad}$$

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Review: Count by 2s & 5s

Count by the number in each star.
Write the missing numbers.

7. 2 2 12

8. 5 25 40

Multiply with 2 & 5; Commutative Property


Name _____

Commutative Property of Multiplication

The order of the factors can be changed without changing the product.



$$\begin{array}{r} 2 \text{ factor} \\ \times 5 \text{ factor} \\ \hline 10 \text{ product} \end{array}$$



$$\begin{array}{r} 5 \text{ factor} \\ \times 2 \text{ factor} \\ \hline 10 \text{ product} \end{array}$$

You can think of a multiplication fact 2 ways.



When 2 is a factor, you can double the other factor.

$$\begin{array}{r} 8 \\ \times 2 \\ \hline 16 \end{array}$$



$$\begin{array}{r} 8 \\ + 8 \\ \hline 16 \end{array}$$

When 2 is a factor, you can count by 2s.

$$\begin{array}{r} 2 \\ \times 8 \\ \hline 16 \end{array}$$

Count by 2s:
2, 4, 6, 8, 10,
12, 14, 16

When 5 is a factor, you can count by 5s.

$$\begin{array}{r} 4 \\ \times 5 \\ \hline 20 \end{array}$$

Count by 5s:
5, 10, 15, 20

Multiply. Write the product.

1. $\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$

2. $\begin{array}{r} 5 \\ \times 2 \\ \hline \end{array}$

3. $\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$

4. $\begin{array}{r} 2 \\ \times 2 \\ \hline \end{array}$

5. $\begin{array}{r} 2 \\ \times 4 \\ \hline \end{array}$

6. $\begin{array}{r} 2 \\ \times 3 \\ \hline \end{array}$

Use the *count by* strategy. Write the product.

7. $5 \times 2 = \underline{\quad}$

8. $5 \times 5 = \underline{\quad}$

9. $8 \times 2 = \underline{\quad}$

2 4 6 8 10

Use the Commutative Property to write the related multiplication fact.

10. $7 \times 5 = 35$


11. $5 \times 3 = 15$

12. 2

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

$$\begin{array}{r} \times 6 \\ 2 \\ \hline 12 \end{array} \times \underline{\quad}$$

 Draw a picture to solve.
Write a multiplication equation and label.

13. Joshua planted 3 rows of pine trees on his farm. He planted 5 trees in each row. How many trees did Joshua plant?

picture space



Commutative Property of Multiplication

The order of the factors can be changed without changing the product.

When 2 is a factor, you can count by 2s or double the other factor.

When 5 is a factor, you can count by 5s.

Multiply. Write the product.

1. $\begin{array}{r} 2 \\ \times 5 \\ \hline \end{array}$

2. $\begin{array}{r} 9 \\ \times 2 \\ \hline \end{array}$

3. $\begin{array}{r} 5 \\ \times 9 \\ \hline \end{array}$

4. $\begin{array}{r} 7 \\ \times 2 \\ \hline \end{array}$

5. $\begin{array}{r} 5 \\ \times 5 \\ \hline \end{array}$

6. $\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$

Use the *count by* strategy. Write the product.

7. $3 \times 2 = \underline{\quad}$
 $\quad \quad \quad 2 \ 4 \ 6$

8. $4 \times 5 = \underline{\quad}$

9. $2 \times 2 = \underline{\quad}$

Use the Commutative Property to write the related multiplication fact.

10. $6 \times 5 = 30$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$

11. $2 \times 8 = 16$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$

12. $\begin{array}{r} 5 \\ \times 7 \\ \hline 35 \end{array} \times \underline{\quad}$



Solve and label.

13. Paul helped Joshua plant 2 rows of apple trees. They planted 4 apple trees in each row. How many apple trees did they plant?

$\underline{\quad} \times \underline{\quad} = \underline{\quad}$

Circle the picture that shows what Joshua and Paul planted.



Review: Count by 3s

Count by 3s. Write the missing numbers.

15. $\underline{\quad} \quad \underline{\quad} \quad 9 \quad \underline{\quad} \quad \underline{\quad} \quad \underline{\quad} \quad 21 \quad \underline{\quad} \quad \underline{\quad} \quad \underline{\quad}$

Add.

16. $\begin{array}{r} 6 \\ + 3 \\ \hline \end{array}$

17. $\begin{array}{r} 15 \\ + 3 \\ \hline \end{array}$

18. $\begin{array}{r} 21 \\ + 3 \\ \hline \end{array}$

19. $\begin{array}{r} 12 \\ + 3 \\ \hline \end{array}$

20. $\begin{array}{r} 24 \\ + 3 \\ \hline \end{array}$

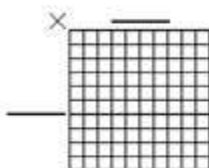
21. $\begin{array}{r} 30 \\ + 3 \\ \hline \end{array}$

Chapter 6 Review

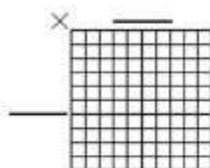
Name _____

Color and label the array.
Multiply. Write the product.

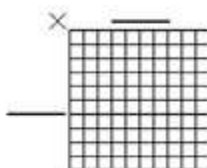
1. $6 \times 4 = \underline{\quad}$



2. $3 \times 7 = \underline{\quad}$



3. $9 \times 5 = \underline{\quad}$



Use the *count by* strategy. Write the product.

4.
$$\begin{array}{r} 2 \\ \times 8 \\ \hline \end{array}$$

5.
$$\begin{array}{r} 3 \\ \times 5 \\ \hline \end{array}$$

6.
$$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$$

Use the mats to draw pictures to solve.
Write the product.

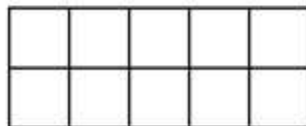
7. $8 \times 4 = \underline{\quad}$



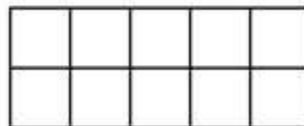
8. $9 \times 3 = \underline{\quad}$




9.
$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$



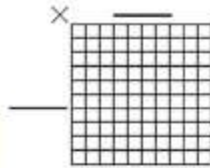
10.
$$\begin{array}{r} 7 \\ \times 5 \\ \hline \end{array}$$



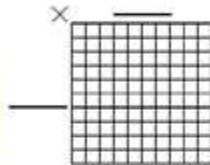
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 **Color and label the array.**
Solve and label.

11. Shaun took 3 bags of apples to share with his class. Each bag had 8 apples in it. What was the total number of apples that Shaun took to class?



12. Cindy has 4 bunches of bananas. There are 7 bananas in each bunch. How many bananas does Cindy have?



Use the Commutative Property to write the related multiplication fact. Solve.

13. $2 \times 5 = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$

14. $9 \times 2 = \underline{\quad}$
 $\underline{\quad} \times \underline{\quad} = \underline{\quad}$

15. $\begin{array}{r} 5 \\ \times 8 \\ \hline \end{array}$ \times $\underline{\quad}$

Multiply.

16. $\begin{array}{r} 9 \\ \times 1 \\ \hline \end{array}$

17. $\begin{array}{r} 0 \\ \times 8 \\ \hline \end{array}$

18. $\begin{array}{r} 6 \\ \times 0 \\ \hline \end{array}$

19. $\begin{array}{r} 1 \\ \times 5 \\ \hline \end{array}$

20. $\begin{array}{r} 10 \\ \times 0 \\ \hline \end{array}$

21. $\begin{array}{r} 7 \\ \times 1 \\ \hline \end{array}$



The roadrunner eats rattlesnakes, spiders, and scorpions.

Cumulative Review

Name _____

Test Prep

Mark the correct answer on your answer sheet.

Mark *NH* if the answer is "Not Here."

Add.

1.
$$\begin{array}{r} 3,675 \\ +4,342 \\ \hline \end{array}$$
 A. 8,917
B. 8,017
C. 7,917
D. NH

2.
$$\begin{array}{r} 17,856 \\ +23,500 \\ \hline \end{array}$$
 A. 41,356
B. 30,856
C. 40,356
D. NH

3.
$$\begin{array}{r} 58,649 \\ + 9,638 \\ \hline \end{array}$$
 A. 57,277
B. 67,287
C. 68,287
D. NH

4.
$$\begin{array}{r} 7,143 \\ +4,896 \\ \hline \end{array}$$
 A. 12,939
B. 11,939
C. 12,039
D. NH

5.
$$\begin{array}{r} 11,582 \\ + 9,350 \\ \hline \end{array}$$
 A. 11,232
B. 1,232
C. 20,232
D. NH

6.
$$\begin{array}{r} 25,980 \\ +13,756 \\ \hline \end{array}$$
 A. 12,236
B. 12,224
C. 11,276
D. NH

7.
$$\begin{array}{r} 4,300 \\ +2,700 \\ \hline \end{array}$$
 A. 2,400
B. 2,600
C. 1,500
D. NH

8.
$$\begin{array}{r} 7,000 \\ +2,986 \\ \hline \end{array}$$
 A. 5,986
B. 5,014
C. 4,014
D. NH

9.
$$\begin{array}{r} 346 \\ 24 \\ + 486 \\ \hline \end{array}$$
 A. 856
B. 840
C. 866
D. NH

10.
$$\begin{array}{r} 5,613 \\ 1,482 \\ + 307 \\ \hline \end{array}$$
 A. 6,492
B. 6,402
C. 7,402
D. NH

11.
$$\begin{array}{r} 500 \\ 50 \\ +5,000 \\ \hline \end{array}$$
 A. 5,055
B. 5,550
C. 5,505
D. NH

12.
$$\begin{array}{r} 4,620 \\ 57 \\ + 329 \\ \hline \end{array}$$
 A. 5,096
B. 5,996
C. 4,996
D. NH

Round each number to the nearest ten.

13. 68 A. 70
 B. 80
 C. 60
 D. NH
14. 4,789 A. 4,780
 B. 4,790
 C. 4,800
 D. NH
15. 593 A. 500
 B. 590
 C. 600
 D. NH

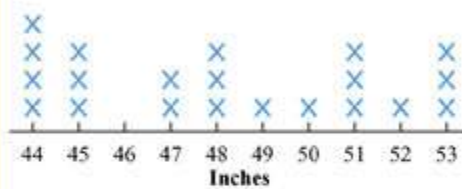
Choose $>$, $<$, or $=$ to make a true statement.

16. $4,000 + 700 + 50 + 9 \bigcirc 5,643$
 A. $>$ B. $<$ C. $=$ D. NH
17. $3,000 + 60 + 5 \bigcirc 395$
 A. $>$ B. $<$ C. $=$ D. NH
18. $1,758 \bigcirc 5,000 + 600 + 10$
 A. $>$ B. $<$ C. $=$ D. NH



Use the line plot to answer the questions.

Mrs. Smith wrote down in inches the height of each student in her class.



19. How many students are 44 inches tall?
 A. 4 B. 7 C. 9 D. NH
20. How many students are in Mrs. Smith's class?
 A. 21 B. 15 C. 7 D. NH
21. What is the difference in height between the shortest and tallest child?
 A. 9 in. B. 10 in. C. 8 in. D. NH

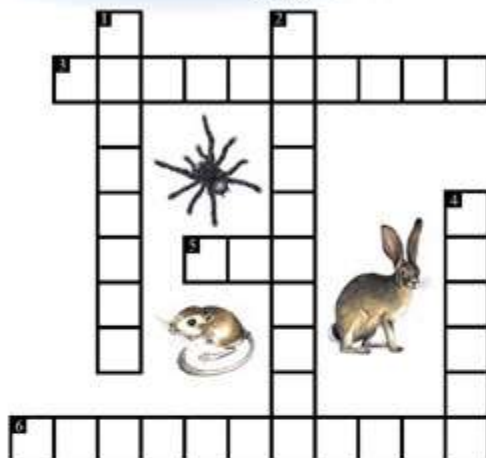
God promises to give Christians the strength and endurance of eagles if we put our trust in Him.
 Isaiah 40:31



Golden Eagle

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Name _____



Complete the facts. Find the product in the box below; then write the word in the puzzle.

Across

3. $0 \times 7 = \underline{\quad}$ This animal eats cactus.
5. $3 \times 5 = \underline{\quad}$ The kangaroo _____ does not need to drink water.
6. $4 \times 2 = \underline{\quad}$ This reptile will not strike if you keep your distance.

Down

1. $3 \times 3 = \underline{\quad}$ This animal looks like a pig and barks when in danger.
2. $4 \times 3 = \underline{\quad}$ These usually harmless loners are the largest of their kind.
4. $2 \times 8 = \underline{\quad}$ This speedy runner that kills livestock is often hunted by man.

Answer Box

16 Coyote	9 Javelina
0 Jackrabbit	12 Tarantulas
8 Rattlesnake	15 Rat

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