



Table of Contents

How to Use This Book 3
NCTM Standards. 4

Unit 1

How to Use a Multiplication Chart to
Learn Division 5
Practice Repeated Subtraction and Division. . . . 6
Practice Using a Multiplication Chart
(basic and reverse facts) 7
Practice Using Multiples and Sequences 8

Unit 2

How to Find Factors
(factor trees and prime factors) 9
Practice Using Combinations of Factors. 10
Practice Using Factor Trees and
Prime Factors 11
Practice Using Missing Factors in Equations . . 12

Unit 3

How to Divide Using One-Digit Divisors 13
Practice Dividing Two Digits by One Digit
(with remainders) 14
Practice More Two Digit by One-Digit
Division (with remainders) 15
Practice Dividing Three Digits by One Digit
(no remainders). 16

Unit 4

How to Divide Using One-Digit Divisors
(long division). 17
Practice Dividing Two Digits by One Digit . . 18
Practice More Two-Digits by One-Digit
Division 19
Practice Even More Two-Digit by
One-Digit Division 20

Unit 5

How to Use a Division Code for
Long Division. 21
Practice Applying the Division Code
to One-Digit Division 22
Practice More Long Division
(one-digit divisor) 23

Unit 6

How to Divide by 10 and Multiples of 10 24
Practice Dividing by 10. 25

Practice More Multiples of 10 Division 26

Unit 7

How to Work with Two-Digit Divisors
not Ending in Zero 27
Practice Simple Division of Three Digits
by Two Digits 28
Practice More Simple Division of Three
Digits by Two Digits. 29

Unit 8

How to Use the Rules of Divisibility
and Estimation 30
Practice Using the Divisibility
Rules for 2, 3, 4, and 5 32
Practice Using the Divisibility
Rules for 6, 9, and 10 33
Practice Estimating the Quotient
(no remainders). 34
Practice More Estimating the Quotient
(with remainders) 35

Unit 9

How to Use Reverse Operation and
Multiplication to Check Answers. 36
Practice Checking Division with
Multiplication 37
Practice Working with Different Division
Problem Formats. 38

Unit 10 (Word Problems)

Simple Word Problems with
One-Digit Divisors 39
More Word Problems with
One-Digit Divisors 40

Unit 11 (Brain Teasers)

Word Problems with Two-Digit Divisors 41
More Word Problems with
Two-Digit Divisors 42
Challenging Word Problems 43

Unit 12 (Technology)

Present Division on a Computer. 44
Computing Averages 46

Answer Key 47

3

Practice

••••• Dividing Three Digits by One Digit

A teacher has 480 stickers. She divides her class into 6 groups. She wants to give each group an equal number of stickers. What is the maximum number of stickers that each group can receive?

$$\begin{array}{r}
 \overline{) 480} \\
 \underline{- 48} \\
 \\

 \end{array}$$

80 6 x 8 = 48 so 6 x 80 = 480

Directions: Use the sample above as a guide to how to solve these problems below.

1. $6 \overline{) 360}$

2. $5 \overline{) 250}$

3. $7 \overline{) 210}$

4. $9 \overline{) 360}$

5. $7 \overline{) 280}$

6. $8 \overline{) 240}$

7. $3 \overline{) 240}$

8. $9 \overline{) 270}$

9. $6 \overline{) 540}$

10. $8 \overline{) 320}$

11. $9 \overline{) 180}$

12. $6 \overline{) 240}$

13. $7 \overline{) 490}$

14. $5 \overline{) 350}$

15. $7 \overline{) 280}$

16. $4 \overline{) 160}$

17. $4 \overline{) 280}$

18. $8 \overline{) 560}$

19. $5 \overline{) 300}$

20. $6 \overline{) 300}$

21. $8 \overline{) 400}$

22. $5 \overline{) 400}$

23. $5 \overline{) 200}$

24. $4 \overline{) 200}$

Facts to Know

- Estimating the quotient can provide an approximate answer to long division problems.
- Use what you know about multiplication with multiples of 10 to help you with the estimation of quotients.

Solve: $10 \overline{)560}$

1. Estimate what multiple of 10 can be used as the divisor for 560. ($10 \times 50 = 500$ is a close estimate to 560.) Write (10×50) next to the estimated product.

$$\begin{array}{r} 10 \overline{)560} \\ - 500 \\ \hline \end{array}$$

Estimate

$$10 \times 50$$

2. Subtract 500 from 560 and the answer is 60.

$$\begin{array}{r} 10 \overline{)560} \\ - 500 \\ \hline 60 \end{array}$$

Estimate

$$10 \times 50$$

3. Estimate what multiple of 10 can be used as the divisor for 60. ($10 \times 6 = 60$) Write 10×6 next to the estimated product. Subtract 60 from 60 and the answer is 0. Add the circled numbers written on the side to get your quotient. ($50 + 6 = 56$)

$$\begin{array}{r} 10 \overline{)560} \\ - 500 \\ \hline 60 \\ - 60 \\ \hline 0 \end{array}$$

Estimate

$$10 \times 50$$

$$10 \times 6$$

4. Check your answer by using the Division Code. For the sample problem, the quotient estimate and the actual answer using the Division Code are the same. In some problems the estimated answer may be slightly less than the actual answer. The actual answer is 56.

$$\begin{array}{r} \times 56 \\ 10 \overline{)560} \\ - 50 \\ \hline 60 \\ - 60 \\ \hline 0 \end{array}$$