

Divide and Conquer

Use place value to divide large numbers.

GRADE 4 • 4.NR.2.4

4.NR.2.4 "Solve authentic division problems involving up to 4-digit dividends and 1- digit divisors (including whole number quotients with remainders) using strategies based on place-value understanding, properties of operations..."

NAME _____

DATE _____

BREAK IT APART

Break a large dividend into parts that are easy to divide by the divisor. Add the partial quotients, then multiply your quotient by the divisor and add any remainder to check.

WORKED EXAMPLE

$$936 \div 4$$

1. $4 \times 200 = 800$, so $936 - 800 = 136$.

2. $4 \times 30 = 120$, so $136 - 120 = 16$.

3. $4 \times 4 = 16$, so no amount is left.

4. $200 + 30 + 4 = 234$.

Answer: 234

PRACTICE 6 problems

1 $684 \div 3 = \underline{\hspace{2cm}}$

ANSWER _____

2 $957 \div 5 = \underline{\hspace{2cm}}$

ANSWER _____

3 $1,248 \div 6 = \underline{\hspace{2cm}}$

ANSWER _____

4 $2,735 \div 5 = \underline{\hspace{2cm}}$

ANSWER _____

5 $3,062 \div 7 = \underline{\hspace{2cm}}$

ANSWER _____

6 $4,000 \div 8 = \underline{\hspace{2cm}}$

ANSWER _____

APPLY IT Show your work

- 1** The school robotics club has 1,643 building pieces to share equally among 6 teams. How many pieces does each team get? How many pieces are left over?

WORK SPACE

ANSWER _____

- 2** A comic-book drive puts 3,456 comics equally into 8 classroom reading bins. How many comics go in each bin?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A library is making 9 equal mystery-book bundles from 3,999 bookmarks. How many bookmarks go in each bundle, and how many are left? Show an equation that checks your answer.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	$684 \div 3 = \underline{\hspace{1cm}}$	228
2	$957 \div 5 = \underline{\hspace{1cm}}$	191 R2
3	$1,248 \div 6 = \underline{\hspace{1cm}}$	208
4	$2,735 \div 5 = \underline{\hspace{1cm}}$	547
5	$3,062 \div 7 = \underline{\hspace{1cm}}$	437 R3
6	$4,000 \div 8 = \underline{\hspace{1cm}}$	500

PART 2 • APPLY IT

1. **273 pieces per team, 5 pieces left over** Divide 1,643 by 6. Since $6 \times 273 = 1,638$, 5 pieces remain.
2. **432 comics per bin** Divide 3,456 by 8. Since $8 \times 432 = 3,456$, there is no remainder.

CHALLENGE

444 R3; $9 \times 444 + 3 = 3,999$

Accept a remainder written as R followed by the remainder number or stated in words. Students may use partial quotients, standard division, or another correct place-value strategy.