

Divide and Conquer

Use the standard algorithm to find each quotient.

GRADE 6 • 6.NS.B.2

CCSS.Math.Content.6.NS.B.2 "Fluently divide multi-digit numbers using the standard algorithm."

NAME _____

DATE _____

LONG DIVISION STEPS

Start at the left, divide, multiply, subtract, and bring down the next digit. If the divisor cannot go into the current amount, write 0 in the quotient before bringing down the next digit.

WORKED EXAMPLE

$$4,872 \div 8$$

- 8 goes into 48 six times. Write 6 in the hundreds place, then subtract $48 - 48 = 0$.
- Bring down 7. Write 0 in the tens place because 8 cannot go into 7, then bring down 2 to make 72.
- 8 goes into 72 nine times. Write 9, then subtract $72 - 72 = 0$.

Answer: 609

PRACTICE 6 problems

1 $7,560 \div 9 = \underline{\hspace{2cm}}$

ANSWER _____

2 $6,384 \div 12 = \underline{\hspace{2cm}}$

ANSWER _____

3 $9,240 \div 24 = \underline{\hspace{2cm}}$

ANSWER _____

4 $15,876 \div 36 = \underline{\hspace{2cm}}$

ANSWER _____

5 $22,725 \div 45 = \underline{\hspace{2cm}}$

ANSWER _____

6 $48,384 \div 64 = \underline{\hspace{2cm}}$

ANSWER _____

APPLY IT Show your work

- 1** An art club has 3,276 beads to share equally among 14 students making bracelets. How many beads does each student get?

WORK SPACE

ANSWER _____

- 2** Student council puts 18,900 glow bracelets into 35 equal boxes for a school event. How many glow bracelets are in each box?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

$$96,096 \div 84 = \underline{\hspace{2cm}}$$

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	$7,560 \div 9 = \underline{\hspace{1cm}}$	840
2	$6,384 \div 12 = \underline{\hspace{1cm}}$	532
3	$9,240 \div 24 = \underline{\hspace{1cm}}$	385
4	$15,876 \div 36 = \underline{\hspace{1cm}}$	441
5	$22,725 \div 45 = \underline{\hspace{1cm}}$	505
6	$48,384 \div 64 = \underline{\hspace{1cm}}$	756

PART 2 • APPLY IT

1. **234 beads** Divide 3,276 by 14. Since $14 \times 234 = 3,276$, each student gets 234 beads.
2. **540 glow bracelets** Divide 18,900 by 35. Since $35 \times 540 = 18,900$, each box has 540 glow bracelets.

CHALLENGE

1,144

Accept quotients written with or without commas. Students should use the standard division algorithm and include a zero in the quotient when needed.