

# Division Quest

*Use the standard algorithm to divide with confidence.*

**GRADE 5 • TEKS 5.3.C**

**5.3.C** "solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm;"

NAME \_\_\_\_\_

DATE \_\_\_\_\_

**DIVIDE STEP BY STEP**

When you divide a large number by a two-digit number, work from left to right. At each place, divide, multiply, subtract, and bring down the next digit. Write a remainder only after you have brought down all the digits.

**WORKED EXAMPLE**

$$936 \div 24$$

1. Divide:  $93 \div 24 = 3$ , so write 3 in the quotient.
2. Multiply and subtract:  $93 - (3 \times 24) = 21$ .
3. Bring down 6 to make 216.
4. Divide:  $216 \div 24 = 9$ , so write 9. The remainder is 0.

**Answer: 39****PRACTICE** 6 problems

**1**  $864 \div 18$

**ANSWER** \_\_\_\_\_

**2**  $1,092 \div 21$

**ANSWER** \_\_\_\_\_

**3**  $1,456 \div 28$

**ANSWER** \_\_\_\_\_

**4**  $2,184 \div 24$

**ANSWER** \_\_\_\_\_

**5**  $3,276 \div 36$

**ANSWER** \_\_\_\_\_

**6**  $3,745 \div 32$

**ANSWER** \_\_\_\_\_

## APPLY IT Show your work

- 1** The art club has 1,872 beads. They put the beads into 24 equal jewelry kits. How many beads are in each kit?

WORK SPACE

ANSWER \_\_\_\_\_

- 2** A field day has 3,150 water bottles. The bottles are shared equally among 35 homerooms. How many water bottles does each homeroom get?

WORK SPACE

ANSWER \_\_\_\_\_

## CHALLENGE One step up

Solve  $5,040 \div 48$  using the standard algorithm. Be careful when the quotient has a zero.

WORK SPACE AND ANSWER

**PART 1 • PRACTICE**

| # | PROBLEM    | ANSWER        |
|---|------------|---------------|
| 1 | 864 / 18   | <b>48</b>     |
| 2 | 1,092 / 21 | <b>52</b>     |
| 3 | 1,456 / 28 | <b>52</b>     |
| 4 | 2,184 / 24 | <b>91</b>     |
| 5 | 3,276 / 36 | <b>91</b>     |
| 6 | 3,745 / 32 | <b>117 R1</b> |

**PART 2 • APPLY IT**

1. **78 beads** Divide 1,872 by 24. Each jewelry kit has 78 beads.
2. **90 water bottles** Divide 3,150 by 35. Each homeroom gets 90 water bottles.

**CHALLENGE****105**

Accept 117 R1 or 117 remainder 1 for problem 6. All other division problems have no remainder.