

# Remainder Rangers

*Divide big numbers and turn leftovers into fractions.*

**GRADE 5 • MA.5.NSO.2.2**

**MA.5.NSO.2.2** "Divide multi-digit whole numbers, up to five digits by two digits, including using a standard algorithm with procedural fluency. Represent remainders as fractions."

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## TURN REMAINDERS INTO FRACTIONS

Divide using the standard algorithm. If there is a remainder, write it over the divisor, then simplify the fraction if possible. Your quotient may be a mixed number.

## WORKED EXAMPLE

$$7,458 \div 23$$

1.  $74 \div 23 = 3$  remainder 5.
2. Bring down 5.  $55 \div 23 = 2$  remainder 9.
3. Bring down 8.  $98 \div 23 = 4$  remainder 6.
4. Write the remainder as  $6/23$ .

**Answer: 324  $6/23$**

## PRACTICE 6 problems

**1**  $864 \div 12$

ANSWER \_\_\_\_\_

**2**  $1,527 \div 18$

ANSWER \_\_\_\_\_

**3**  $3,276 \div 24$

ANSWER \_\_\_\_\_

**4**  $9,413 \div 31$

ANSWER \_\_\_\_\_

**5**  $12,684 \div 16$

ANSWER \_\_\_\_\_

**6**  $45,678 \div 42$

ANSWER \_\_\_\_\_

## APPLY IT Show your work

- 1** The art club has 6,389 centimeters of bracelet cord. The club shares the cord equally among 27 students. How many centimeters of cord does each student get?

WORK SPACE

ANSWER \_\_\_\_\_

- 2** The media club has 24,815 seconds of video footage. It divides the footage equally among 36 student editors. How many seconds of footage does each editor get?

WORK SPACE

ANSWER \_\_\_\_\_

## CHALLENGE One step up

### CHALLENGE

A community garden has 49,999 ounces of soil to share equally among 64 raised beds. How many ounces of soil does each bed get? Write any remainder as a fraction in simplest form.

---

---

## PART 1 • PRACTICE

| # | PROBLEM          | ANSWER                                |
|---|------------------|---------------------------------------|
| 1 | $864 \div 12$    | <b>72</b>                             |
| 2 | $1,527 \div 18$  | <b>84 <math>\frac{5}{6}</math></b>    |
| 3 | $3,276 \div 24$  | <b>136 <math>\frac{1}{2}</math></b>   |
| 4 | $9,413 \div 31$  | <b>303 <math>\frac{20}{31}</math></b> |
| 5 | $12,684 \div 16$ | <b>792 <math>\frac{3}{4}</math></b>   |
| 6 | $45,678 \div 42$ | <b>1,087 <math>\frac{4}{7}</math></b> |

## PART 2 • APPLY IT

1. **236  $\frac{17}{27}$  centimeters** Divide 6,389 by 27. Each student gets 236 centimeters, with 17 centimeters left, so the leftover share is  $\frac{17}{27}$  centimeter.
2. **689  $\frac{11}{36}$  seconds** Divide 24,815 by 36. Each editor gets 689 seconds, with 11 seconds left, so the leftover share is  $\frac{11}{36}$  second.

## CHALLENGE

**781  $\frac{15}{64}$  ounces**

Accept equivalent fractional forms for remainders, including an unsimplified remainder over the divisor when the division quotient is correct. Students should write answers with remainders as fractions, not with the letter r.