

# Remainder Decisions

Use the remainder to answer the real question.

GRADE 4 • 4.CE.2.k

4.CE.2.k "Interpret the quotient and remainder when solving a contextual problem."

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## WHAT DOES THE REMAINDER MEAN?

Divide to find the number of full groups and the amount left over. If the question asks how many groups are needed for everyone or everything, make one more group when there is a remainder. If the question asks about sharing or leftovers, state what is left over.

## WORKED EXAMPLE

Mina has 94 stickers. She puts 8 stickers in each pack. How many full packs can she make, and how many stickers are left?

1.  $94 \div 8 = 11 \text{ R } 6$ .

2. 11 full packs hold 88 stickers.

3.  $94 - 88 = 6$  stickers left.

**Answer: 11 full packs, 6 stickers left**

## PRACTICE 6 problems

- 1** A teacher has 67 crayons. She puts 5 crayons in each cup. How many full cups can she fill, and how many crayons are left?

ANSWER \_\_\_\_\_

- 2** Fifty-three players need rides in shuttles that hold 4 players each. How many shuttles are needed?

ANSWER \_\_\_\_\_

- 3** Eighty-six trading cards are shared equally among 9 friends. How many cards does each friend get, and how many cards are left?

ANSWER \_\_\_\_\_

- 4** A playlist is 75 minutes long. Each episode is 4 minutes long. How many whole episodes fit, and how many minutes are left?

ANSWER \_\_\_\_\_

- 5** A gardener has 62 seeds. She plants 5 seeds in each row. How many full rows can she plant, and how many seeds are left?

ANSWER \_\_\_\_\_

- 6** Seventy-one campers need cabins that hold 7 campers each. How many cabins are needed?

ANSWER \_\_\_\_\_

## APPLY IT Show your work

- 1** An arcade has 127 prize tickets. It puts 12 tickets in each prize envelope. How many full envelopes can it make, and how many tickets will be left?

WORK SPACE

ANSWER \_\_\_\_\_

- 2** One hundred forty-five students are going on a museum tour. Each tour group can have no more than 9 students. How many tour groups are needed?

WORK SPACE

ANSWER \_\_\_\_\_

## CHALLENGE One step up

### CHALLENGE

A library has 158 new books. It can place 9 books on each display shelf. It needs one more shelf for any books that do not fit on a full shelf. How many display shelves does it need? Explain how the remainder helped you decide.

---

---

## PART 1 • PRACTICE

| # | PROBLEM                                                                                                                        | ANSWER                                   |
|---|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
| 1 | A teacher has 67 crayons. She puts 5 crayons in each cup. How many full cups can she fill, and how many crayons are left?      | <b>13 full cups, 2 crayons left</b>      |
| 2 | Fifty-three players need rides in shuttles that hold 4 players each. How many shuttles are needed?                             | <b>14 shuttles</b>                       |
| 3 | Eighty-six trading cards are shared equally among 9 friends. How many cards does each friend get, and how many cards are left? | <b>9 cards each, 5 cards left</b>        |
| 4 | A playlist is 75 minutes long. Each episode is 4 minutes long. How many whole episodes fit, and how many minutes are left?     | <b>18 whole episodes, 3 minutes left</b> |
| 5 | A gardener has 62 seeds. She plants 5 seeds in each row. How many full rows can she plant, and how many seeds are left?        | <b>12 full rows, 2 seeds left</b>        |
| 6 | Seventy-one campers need cabins that hold 7 campers each. How many cabins are needed?                                          | <b>11 cabins</b>                         |

## PART 2 • APPLY IT

- 10 full envelopes, 7 tickets left**  $127 \div 12 = 10 \text{ R } 7$ . Ten envelopes are full, and 7 tickets do not fill another envelope.
- 17 tour groups**  $145 \div 9 = 16 \text{ R } 1$ . Sixteen groups are full, and the 1 remaining student needs a seventeenth group.

## CHALLENGE

**18 display shelves.  $158 \div 9 = 17 \text{ R } 5$ , so 17 shelves are full and the 5 remaining books need an 18th shelf.**

Accept equivalent wording that clearly identifies full groups and leftovers. For questions asking how many groups are needed, the answer must round up when a remainder remains.