

Operation Quest

Solve real-world problems one step at a time.

GRADE 5 • MA.5.AR.1.1

MA.5.AR.1.1 "Solve multi-step real-world problems involving any combination of the four operations with whole numbers, including problems in which remainders must be interpreted within the context."

NAME _____

DATE _____

PLAN EACH STEP

Solve one step at a time, and keep track of what each number means. When you divide, decide whether the remainder is a leftover, an extra group needed, or something that is not used.

WORKED EXAMPLE

A garden club has 96 seedlings.
They place 8 seedlings in each tray,
then give 5 trays to another class.
How many seedlings are left?

1. $96 \div 8 = 12$ trays

2. $12 - 5 = 7$ trays left

3. $7 \times 8 = 56$ seedlings left

Answer: 56 seedlings

PRACTICE 6 problems

- 1** A library puts 135 new books equally on 9 shelves. Then 4 books are checked out from each shelf. How many new books are left on each shelf?

ANSWER _____

- 2** Six teams bring 18 players each to a sports camp. Each player receives 2 water bottles. How many water bottles are needed?

ANSWER _____

- 3** A bakery made 170 muffins and gave 25 muffins to a shelter. It packs the rest into boxes holding 13 muffins. How many full boxes can it make, and how many muffins are left?

ANSWER _____

- 4** A game store receives 240 trading cards. It divides them equally into 10 packs and gives 3 packs to a club. How many cards does the store have left?

ANSWER _____

- 5** A farm stand has 80 apples and puts 13 apples in each bag. It sells 3 full bags. How many apples remain?

ANSWER _____

- 6** An art teacher has 216 beads. She uses 36 beads for a mural and shares the rest equally among 9 tables. How many beads does each table get?

ANSWER _____

APPLY IT Show your work

- 1** The robotics club has 9 teams. Each team builds 14 mini models. The club keeps 18 models for display and packs the rest into boxes that hold 11 models each. How many full boxes can it fill, and how many models are left?

WORK SPACE

ANSWER _____

- 2** At a school game night, 23 tickets are sold for \$4 each and 17 tickets are sold for \$6 each. The school spends \$35 on snacks. How much money remains?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

The student council orders 28 packs of 16 glow sticks. It sets aside 44 glow sticks for a dance. The rest are shared equally among 13 classrooms. How many glow sticks does each classroom get, and how many glow sticks are left?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A library puts 135 new books equally on 9 shelves. Then 4 books are checked out from each shelf. How many new books are left on each shelf?	11 books on each shelf
2	Six teams bring 18 players each to a sports camp. Each player receives 2 water bottles. How many water bottles are needed?	216 water bottles
3	A bakery made 170 muffins and gave 25 muffins to a shelter. It packs the rest into boxes holding 13 muffins. How many full boxes can it make, and how many muffins are left?	11 full boxes, 2 muffins left
4	A game store receives 240 trading cards. It divides them equally into 10 packs and gives 3 packs to a club. How many cards does the store have left?	168 cards
5	A farm stand has 80 apples and puts 13 apples in each bag. It sells 3 full bags. How many apples remain?	41 apples
6	An art teacher has 216 beads. She uses 36 beads for a mural and shares the rest equally among 9 tables. How many beads does each table get?	20 beads

PART 2 • APPLY IT

- 9 full boxes, 9 models left** Find the total number of models, then subtract the models kept for display. Divide the remaining models by the number that fit in each box.
- \$159** Multiply each ticket price by the number of tickets sold, then add the two amounts. Subtract the snack cost.

CHALLENGE**31 glow sticks per classroom, 1 glow stick left**

Accept equivalent wording when the quantities and units are clear. For division situations, answers must include both the number of full groups and any leftover amount when asked.