LESSON MAKER PRO

Pack It Up

Solve, interpret remainders, and check.

GRADE 4 · 4.OA.3b

4.OA.3b "Solve multi-step word problems posed with whole numbers, including problems in which remainders must be interpreted. Assess the reasonableness of answers using mental computation and estimation strategies including rounding."

NAME _____ DATE _____

WHAT DOES THE REMAINDER MEAN?

Solve each step in order, then decide what the remainder means. If every item needs a place, you may need one more group. Round to check whether your answer makes sense.

WORKED EXAMPLE

You have 23 soccer stickers and 16 animal stickers. Each pack holds 5 stickers. How many packs hold them all?

1. 23 + 16 = 39 stickers
2. 39 / 5 = 7 remainder 4
3. The 4 extra stickers need another pack, so 7 + 1 = 8.
4. 39 rounds to 40, and 40 / 5 = 8.

Answer: 8 packs

PRACTICE 4 problems

1 A class has 18 green pencils and 17 yellow pencils. A cup holds 9 pencils. How many cups hold them all?

ANSWER _____

2 A game has 32 star cards and 25 moon cards. Each set needs 8 cards. How many full sets can you make, and how many cards are left?

ANSWER _____

3 A club has 48 tokens. It gives away 11, then makes stacks of 4. How many full stacks can it make?

ANSWER _____

4 A shop has 61 roses and 12 daisies. Each vase holds 10 flowers. How many vases hold them all? Round to check.

ANSWER _____

APPLY IT Show your work

1 At a class movie, 94 students and 13 adults need seats. Each row seats 12 people. How many rows do they need? Round to check.

WORK SPACE

ANSWER _____

2 A gaming club has 82 prize tickets. It spends 29 tickets, then shares the rest equally among 7 players. How many tickets does each player get, and how many are left?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A school buys 9 packs of 14 glow sticks and gives 37 sticks away. Each bag holds 11 sticks. How many bags hold the rest? Explain why your answer makes sense.

WORK SPACE AND ANSWER

ANSWER KEY

Pack It Up

GRADE 4 · 4.OA.3b

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A class has 18 green pencils and 17 yellow pencils. A cup holds 9 pencils. How many cups hold them all?	**4 cups**
2	A game has 32 star cards and 25 moon cards. Each set needs 8 cards. How many full sets can you make, and how many cards are left?	**7 full sets, with 1 card left**
3	A club has 48 tokens. It gives away 11, then makes stacks of 4. How many full stacks can it make?	**9 full stacks**
4	A shop has 61 roses and 12 daisies. Each vase holds 10 flowers. How many vases hold them all? Round to check.	**8 vases. There are 73 flowers, which rounds to 70. Seven vases hold only 70, so 8 makes sense.**

PART 2 · APPLY IT

1. **9 rows** 94 + 13 = 107, and 107 / 12 = 8 remainder 11, so they need 9 rows. Rounding 107 to 110 gives about 9 rows.
2. **7 tickets per player, with 4 left** 82 - 29 = 53 tickets. Then 53 / 7 = 7 remainder 4.

CHALLENGE

9 bags. The school has 9 × 14 - 37 = 89 sticks left. Eight bags hold only 88 sticks, so one more bag is needed.

Accept equivalent estimates for the rounding checks. In the challenge, accept any explanation that shows why 8 bags are not enough.