

Solve It Smart

Plan, solve, and check each situation.

GRADE 5 • 5.MP.1

5.MP.1 "Make sense of problems and persevere in solving them."

NAME _____

DATE _____

A PROBLEM-SOLVING PLAN

Read the whole situation and decide what the question asks before you calculate. Mark the facts you need, choose an operation or a sequence of operations, and use an estimate or an inverse operation to check whether your answer makes sense.

WORKED EXAMPLE

A library puts 6 new books on each of 14 display tables. How many new books are on the tables?

1. There are 14 equal groups of 6 books.
2. Multiply: $14 \text{ times } 6 = 84$.
3. Check: $84 \div 14 = 6$.

Answer: 84 books

PRACTICE 6 problems

- 1** Plan, solve, and check: Miguel has 27 trading cards. He gets 35 more cards and gives 19 cards to his cousin. How many trading cards does Miguel have now?

ANSWER _____

- 2** Plan, solve, and check: The art room has 8 boxes with 12 colored pencils in each box. How many colored pencils are there?

ANSWER _____

- 3** Plan, solve, and check: A smoothie recipe uses $\frac{1}{8}$ liter of juice from a container holding $\frac{3}{4}$ liter. How much juice is left?

ANSWER _____

- 4** Plan, solve, and check: A streamer has 2.75 meters of ribbon for a backdrop. She cuts off 1.20 meters. How much ribbon remains?

ANSWER _____

- 5** Plan, solve, and check: A student has \$50 for a game event. Two tickets cost \$17 each. How much money is left after buying both tickets?

ANSWER _____

- 6** Plan, solve, and check: A class of 45 students is riding in vans that each hold 9 students. How many vans are needed?

ANSWER _____

APPLY IT Show your work

- 1** Plan, solve, and check: The school esports club sells 125 stickers for \$3 each. The club spends \$48 on supplies. How much money can the club donate?

WORK SPACE

ANSWER _____

- 2** Plan, solve, and check: At field day, 9 cases each contain 24 water bottles. After 37 bottles are handed out, how many bottles remain?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

The student council has 168 trading cards and 115 pencils for prize packs. Each complete prize pack must have 7 trading cards and 5 pencils. What is the greatest number of complete prize packs the council can make? Which supply limits the number of packs? Explain how you checked.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Plan, solve, and check: Miguel has 27 trading cards. He gets 35 more cards and gives 19 cards to his cousin. How many trading cards does Miguel have now?	43 trading cards
2	Plan, solve, and check: The art room has 8 boxes with 12 colored pencils in each box. How many colored pencils are there?	96 colored pencils
3	Plan, solve, and check: A smoothie recipe uses $\frac{1}{8}$ liter of juice from a container holding $\frac{3}{4}$ liter. How much juice is left?	$\frac{5}{8}$ liter
4	Plan, solve, and check: A streamer has 2.75 meters of ribbon for a backdrop. She cuts off 1.20 meters. How much ribbon remains?	1.55 meters
5	Plan, solve, and check: A student has \$50 for a game event. Two tickets cost \$17 each. How much money is left after buying both tickets?	\$16
6	Plan, solve, and check: A class of 45 students is riding in vans that each hold 9 students. How many vans are needed?	5 vans

PART 2 • APPLY IT

- \$327** First find the money earned, 125 times \$3 = \$375. Then subtract the \$48 spent on supplies: $\$375 - \$48 = \$327$.
- 179 water bottles** Find the total number of bottles, 9 times 24 = 216. Then subtract 37 from 216 to get 179.

CHALLENGE

23 complete prize packs. Pencils limit the number of packs. After making 23 packs, 7 trading cards are left and 0 pencils are left.

Accept correct answers with appropriate units. For the fraction problem, accept $\frac{5}{8}$ or an equivalent fraction; accept a valid explanation that uses division or repeated groups for the challenge.