

Model It Two Ways

Use models, tables, and equations to solve stories.

GRADES K-12 • MA.K12.MTR.2.1

MA.K12.MTR.2.1 "Demonstrate understanding by representing problems in multiple ways. Mathematicians who demonstrate understanding by representing problems in multiple ways: Build understanding through modeling and using manipulatives..."

NAME _____

DATE _____

PART 1: PRACTICE

A story can be shown with a sketch, a table, or an equation. Choose a model that fits the story, then use an equation and a check to see whether your answer makes sense.

WORKED EXAMPLE

The art cart has 13 blue markers and 6 red markers. How many markers are on the cart?

1. Make a table: blue 13, red 6, total ____.
2. Write an equation: $13 + 6 = \underline{\hspace{1cm}}$.
3. Add to find 19.
4. Check: $19 - 6 = 13$.

Answer: 19 markers

PRACTICE 5 problems

- 1** A student has 8 bird cards and gets 7 more. Make a table, write an equation, and check. How many bird cards does the student have?

ANSWER _____

- 2** At a water balloon game, 16 balloons are ready. Then 7 balloons pop. Make a table, write an equation, and check. How many balloons are left?

ANSWER _____

- 3** A game shelf has 3 rows with 4 games in each row. Show the equal groups and write a repeated-addition equation. How many games are on the shelf?

ANSWER _____

- 4** A coach shares 21 juice boxes equally among 3 teams. Make a table and write an equation. How many juice boxes does each team get?

ANSWER _____

- 5** A bracelet club has 28 beads and uses 11 beads. Make a table, write an equation, and check. How many beads are left?

ANSWER _____

APPLY IT Show your work

- 1** At a game club, Amari starts with 24 points. Amari earns 8 points, then uses 5 points for a prize. Make a table for each change, write an equation, and check. How many points does Amari have now?

WORK SPACE

ANSWER _____

- 2** The garden club fills 4 trays with 7 seedlings in each tray. Then the club adds 3 extra seedlings. Make a table, write an equation, and check. How many seedlings are there?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

At a book swap, 4 tables each have 8 books. Then 9 books are taken. Make a table and write an equation. Explain in one sentence why your table helps. How many books are left?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A student has 8 bird cards and gets 7 more. Make a table, write an equation, and check. How many bird cards does the student have?	Table: start 8, added 7, total 15; equation: $8 + 7 = 15$; check: $15 - 7 = 8$.
2	At a water balloon game, 16 balloons are ready. Then 7 balloons pop. Make a table, write an equation, and check. How many balloons are left?	Table: start 16, popped 7, left 9; equation: $16 - 7 = 9$; check: $9 + 7 = 16$.
3	A game shelf has 3 rows with 4 games in each row. Show the equal groups and write a repeated-addition equation. How many games are on the shelf?	Rows: 4 4 4; equation: $4 + 4 + 4 = 12$; check: $12 / 3 = 4$.
4	A coach shares 21 juice boxes equally among 3 teams. Make a table and write an equation. How many juice boxes does each team get?	Table: 21 total, 3 teams, 7 each; equation: $21 / 3 = 7$; check: $7 + 7 + 7 = 21$.
5	A bracelet club has 28 beads and uses 11 beads. Make a table, write an equation, and check. How many beads are left?	Table: start 28, used 11, left 17; equation: $28 - 11 = 17$; check: $17 + 11 = 28$.

PART 2 • APPLY IT

- Table: 24, then 32, then 27; equation: $24 + 8 - 5 = 27$; check: $27 + 5 - 8 = 24$.** Add the points earned, then subtract the points used: $24 + 8 - 5 = 27$.
- Table: tray 1=7, tray 2=7, tray 3=7, tray 4=7, extras=3; equation: $7 + 7 + 7 + 7 + 3 = 31$; check: $31 - 3 = 28$.** Find the seedlings in the 4 equal trays, then add the 3 extras: $28 + 3 = 31$.

CHALLENGE

Table: table 1=8, table 2=8, table 3=8, table 4=8, then 9 taken; equation: $8 + 8 + 8 + 8 - 9 = 23$. A table shows the four equal groups, so there are 23 books.

Accept any accurate table, sketch, or number line that matches the story and a matching equation. Accept a correct inverse-operation check or another clear check that confirms the total.