

Zoo Story Problems

Teacher Guide · Solutions · Rubric

Grade 2 · All levels

Overview

Students visit a pretend zoo. They solve add-to, take-from, put-together, take-apart and compare stories with unknowns in every position, draw bar models, and write their own two-step story problem book.

Time: 2 class periods · **Product:** Story Problem Book
Standards: 2.OA.A.1
Prerequisite skills: Add and subtract within 100 (Unit 5)

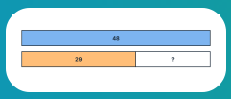
Learning targets

- I can solve one- and two-step word problems within 100.
- I can draw a bar model for a story.
- I can write an equation with a ? for the unknown.

Timing and materials

- Day 1 (40 min): stories with the result or a part unknown (Parts 1–2).
- Day 2 (40 min): compare and two-step stories; the story book (Parts 3–4).

Materials: Bar-model strips (printable support page); Folded paper for the book; Crayons. No accounts, paid products or student personal information are needed.



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The three versions

- Remedial: hints for a first step, partly filled tables, sentence frames and fewer open choices; the same learning targets.
- Standard: the full task set at grade level; students choose their strategies and models.
- Advanced: open design constraints, missing information, error analysis and a written justification; no hints.

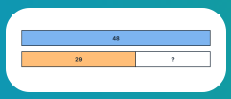
All versions use the same context and learning targets, so groups can share and compare work.

Implementation notes

- Have students act out a story before drawing the bar model.
- Ask “What do we know? What do we need?” for every story.
- Advanced students write stories with the start unknown and trade them with a partner.
- Before Part 1, read the challenge aloud and ask students to restate the goal.
- Close with a gallery walk: each group explains one strategy.

Rubric

Learning target	4 Exceeds	3 Meets	2 Approaching	1 Beginning
I can solve one- and two-step word problems within 100.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can draw a bar model for a story.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can write an equation with a ? for the unknown.	Correct and complete; explains how	Mostly correct	Partly correct	Not yet
I can explain my thinking with pictures, numbers and words.	Clear for every part	Clear for most parts	Some explanation	Little explanation
My story problem book is complete and matches my math.	Complete, neat, accurate	Complete	Partly complete	Not complete



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Solutions · Remedial KEY

Part 1: Add To and Take From

Solve each story. Write an equation with ?.

1. There were 18 ducks in the pond. 12 more came. How many ducks now?

30 ducks (18 + 12 = ?)

2. The zoo had 30 maps. Visitors took 12. How many maps are left?

18 maps (30 − 12 = ?)

3. Some seals were on a rock. 12 jumped off. 18 seals are still there. How many were there at first?

30 seals (? − 12 = 18)

Part 2: Put Together and Take Apart

The zoo has 30 birds. 18 are parrots and the rest are owls.

4. How many owls are there?

12 owls (18 + ? = 30)

Part 3: Compare

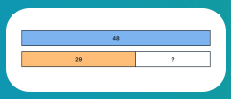
The penguins ate 30 fish. The seals ate 12 fewer fish than the penguins.

5. How many fish did the seals eat?

18 fish (30 − 12 = ?)

6. How many more fish did the penguins eat than the seals?

12 fish



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Part 4: Two Steps

A tram had 18 riders. 12 got on and 7 got off.

7. How many riders are on the tram now?

23 riders

Part 5: My Story Book

Write two zoo stories: one add-to and one compare. Draw a bar model for each.

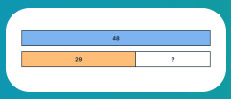
8. Write, draw, and solve your stories.

Answers vary; each bar model must match its equation.

Extension

The zoo had 64 visitors before lunch and 29 after lunch. How many more came before lunch?

35 more visitors



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Solutions · Standard KEY

Part 1: Add To and Take From

Solve each story. Write an equation with ?.

1. There were 36 ducks in the pond. 27 more came. How many ducks now?

63 ducks (36 + 27 = ?)

2. The zoo had 63 maps. Visitors took 27. How many maps are left?

36 maps (63 − 27 = ?)

3. Some seals were on a rock. 27 jumped off. 36 seals are still there. How many were there at first?

63 seals (? − 27 = 36)

Part 2: Put Together and Take Apart

The zoo has 63 birds. 36 are parrots and the rest are owls.

4. How many owls are there?

27 owls (36 + ? = 63)

Part 3: Compare

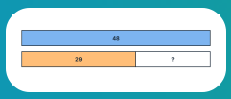
The penguins ate 63 fish. The seals ate 27 fewer fish than the penguins.

5. How many fish did the seals eat?

36 fish (63 − 27 = ?)

6. How many more fish did the penguins eat than the seals?

27 fish



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Part 4: Two Steps

A tram had 36 riders. 27 got on and 15 got off.

7. How many riders are on the tram now?

48 riders

Part 5: My Story Book

Write two zoo stories: one add-to and one compare. Draw a bar model for each.

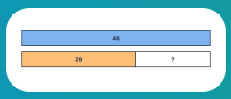
8. Write, draw, and solve your stories.

Answers vary; each bar model must match its equation.

Extension

The zoo had 64 visitors before lunch and 29 after lunch. How many more came before lunch?

35 more visitors



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Solutions · Advanced KEY

Part 1: Add To and Take From

Solve each story. Write an equation with ?.

1. There were 48 ducks in the pond. 35 more came. How many ducks now?

83 ducks (48 + 35 = ?)

2. The zoo had 83 maps. Visitors took 35. How many maps are left?

48 maps (83 − 35 = ?)

3. Some seals were on a rock. 35 jumped off. 48 seals are still there. How many were there at first?

83 seals (? − 35 = 48)

Part 2: Put Together and Take Apart

The zoo has 83 birds. 48 are parrots and the rest are owls.

4. How many owls are there?

35 owls (48 + ? = 83)

Part 3: Compare

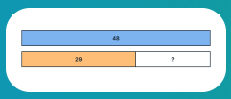
The penguins ate 83 fish. The seals ate 35 fewer fish than the penguins.

5. How many fish did the seals eat?

48 fish (83 − 35 = ?)

6. How many more fish did the penguins eat than the seals?

35 fish



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Part 4: Two Steps

A tram had 48 riders. 35 got on and 22 got off.

7. How many riders are on the tram now?

61 riders

Part 5: Story Check

Find and fix the mistake.

8. Kai solved: “Ana has 83 stickers. She has 35 more than Ben. How many does Ben have?” Kai wrote 83 + 35 = 118. Fix it.

Ben has fewer: 83 − 35 = 48 stickers.

9. Write a two-step zoo story whose answer is 40. Show the equations.

Answers vary; both steps must be correct and the answer must be 40.

Extension

The zoo had 64 visitors before lunch and 29 after lunch. How many more came before lunch?

35 more visitors