17 ÷ 5 = 3 R 2

Party Planner

Teacher Guide & Answer Keys

Grade 4 · All levels

Overview

Students plan a school celebration. They divide to seat guests, share snacks and pack party bags, then decide what each remainder means: ignore it, add one more group, or use it as the answer. They check every quotient with multiplication.

Time: 2 class periods · **Product:** Party Plan · **Standards:** 4.NBT.B.6, 4.OA.A.3

Suggested pacing

- Day 1: Introduce the challenge, read the scenario together, and work Parts 1–2 in pairs.
- Day 2: Finish the remaining parts and create the final product.
- Wrap-up: Share products and reflect on strategies.

Levels

- **Remedial:** smaller numbers, fewer steps, more structure.
- **Standard:** grade-level numbers and the full set of tasks.
- **Advanced:** harder numbers, extra reasoning and multi-step questions.

All three levels practice the same learning goals, so the class can share and compare work.

Rubric

Category	4 Excellent	3 Good	2 Developing	1 Beginning
Math accuracy	All answers correct	Most answers correct	Some answers correct	Few answers correct
Shows work	Clear work for every step	Work for most steps	Some work shown	Little work shown
Explains thinking	Clear, complete explanations	Mostly clear explanations	Some explanation	Little explanation
Final product	Complete, neat and creative	Complete and neat	Partly complete	Not complete



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Answer key · Remedial KEY

Part 1: Seating the Guests

1. Divide. Write the quotient and the remainder.

50 ÷ 8 = 6 R 2

2. How many tables are needed so that everyone has a seat? Explain.

7 tables. 6 tables are full and the 2 extra guests need one more table.

3. Check with multiplication.

8 × 6 + 2 = 50

Part 2: Sharing Stickers

4. How many stickers go in each bag?

23 stickers (95 ÷ 4 = 23 R 3)

5. How many stickers are left over?

3

6. In this problem, what do you do with the remainder?

Ignore it for the bags: the leftover stickers are not enough to give every bag one more.

Part 3: Juice Boxes

7. How many packs must you buy? Show your division.

75 ÷ 6 = 12 R 3, so buy 13 packs.

8. How many extra juice boxes will you have?

78 − 75 = 3

Part 4: Balloon Bunches

9. How many bunches can you make?

84 ÷ 7 = 12 bunches

10. Is there a remainder? What does that tell you about the two numbers?

No. 7 is a factor of 84 (84 is a multiple of 7).

11. Write your party plan: tables, bags, packs and bunches.

7 tables, 4 bags with 23 stickers each, 13 packs of juice, 12 balloon bunches.

Extension

58 guests; 8 tables.



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Grade 4 · All levels

Answer key · Standard KEY

Part 1: Seating the Guests

1. Divide. Write the quotient and the remainder.

134 ÷ 6 = 22 R 2

2. How many tables are needed so that everyone has a seat? Explain.

23 tables. 22 tables are full and the 2 extra guests need one more table.

3. Check with multiplication.

6 × 22 + 2 = 134

Part 2: Sharing Stickers

4. How many stickers go in each bag?

52 stickers (475 ÷ 9 = 52 R 7)

5. How many stickers are left over?

7

6. In this problem, what do you do with the remainder?

Ignore it for the bags: the leftover stickers are not enough to give every bag one more.

Part 3: Juice Boxes

7. How many packs must you buy? Show your division.

260 ÷ 8 = 32 R 4, so buy 33 packs.

8. How many extra juice boxes will you have?

264 − 260 = 4

Part 4: Balloon Bunches

9. How many bunches can you make?

252 ÷ 6 = 42 bunches

10. Is there a remainder? What does that tell you about the two numbers?

No. 6 is a factor of 252 (252 is a multiple of 6).

11. Write your party plan: tables, bags, packs and bunches.

23 tables, 9 bags with 52 stickers each, 33 packs of juice, 42 balloon bunches.

Extension

46 (6 × 7 + 4). 40 also works: 6 × 6 + 4 = 40.

17 ÷ 5 = 3 R 2

Party Planner

Teacher Guide & Answer Keys

Grade 4 · All levels

Answer key · Advanced KEY

Part 1: Seating the Guests

1. Divide. Write the quotient and the remainder.

1,358 ÷ 8 = 169 R 6

2. How many tables are needed so that everyone has a seat? Explain.

170 tables. 169 tables are full and the 6 extra guests need one more table.

3. Check with multiplication.

8 × 169 + 6 = 1,358

Part 2: Sharing Stickers

4. How many stickers go in each bag?

335 stickers (2,350 ÷ 7 = 335 R 5)

5. How many stickers are left over?

5

6. In this problem, what do you do with the remainder?

Ignore it for the bags: the leftover stickers are not enough to give every bag one more.

Part 3: Juice Boxes

7. How many packs must you buy? Show your division.

1,500 ÷ 9 = 166 R 6, so buy 167 packs.

8. How many extra juice boxes will you have?

1,503 − 1,500 = 3

Part 4: Balloon Bunches

9. How many bunches can you make?

3,248 ÷ 8 = 406 bunches

10. Is there a remainder? What does that tell you about the two numbers?

No. 8 is a factor of 3,248 (3,248 is a multiple of 8).

11. Write your party plan: tables, bags, packs and bunches.

170 tables, 7 bags with 335 stickers each, 167 packs of juice, 406 balloon bunches.

Extension

Stories vary. Example: 1,358 guests fill tables of 8; how many sit at the table that is not full? 1,358 ÷ 8 = 169 R 6, so 6 guests.



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Worked teacher example (Standard, Part 1)

Divide. Write the quotient and the remainder.

134 ÷ 6 = 22 R 2

How many tables are needed so that everyone has a seat? Explain.

23 tables. 22 tables are full and the 2 extra guests need one more table.

Check with multiplication.

6 × 22 + 2 = 134

Model the first part aloud: read the situation, name the operation, estimate, solve, and check. Then let partners try Part 2.

Look for

- Students use correct notation and units in every answer.
- Students explain why an answer is reasonable (estimates, benchmarks, pictures).
- Final products show the math clearly, not just the answers.