

School Carnival Planner

Teacher Guide & Answer Keys

Grade 5 · All levels

Overview

Students plan a school carnival. They multiply to find ticket and prize totals, divide to share supplies and arrange buses and tables, interpret remainders, and estimate to check that the plan makes sense.

Time: 2 class periods · **Product:** Carnival Plan · **Standards:** 5.NBT.B.5, 5.NBT.B.6

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.

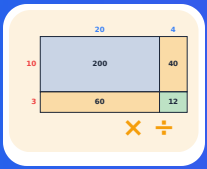
Levels

- **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: Getting Everyone There

1. How many buses are needed?
7 buses

2. Write the division and explain the remainder.
168 ÷ 24 = 7 R0; no extra bus is needed.

Part 2: Ticket Sales

3. Estimate the total number of tickets.
about 400

4. Find the exact total.
432 tickets

5. Is your answer reasonable? Explain.
Yes, it is close to the estimate.

Part 3: Prize Bags

6. How many full prize bags can be made?
12 bags

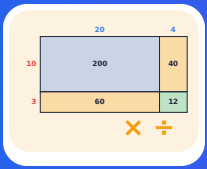
7. How many prizes are left over?
0 prizes

Part 4: Carnival Plan

8. Show an area model or partial products for one multiplication.
Answers vary.

Extension

$1,295; about $7.71 per student



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Answer key · Standard KEY

Part 1: Getting Everyone There

1. How many buses are needed?
24 buses

2. Write the division and explain the remainder.
1,248 ÷ 52 = 24 R0; no extra bus is needed.

Part 2: Ticket Sales

3. Estimate the total number of tickets.
about 8,000

4. Find the exact total.
8,680 tickets

5. Is your answer reasonable? Explain.
Yes, it is close to the estimate.

Part 3: Prize Bags

6. How many full prize bags can be made?
130 bags

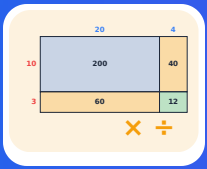
7. How many prizes are left over?
0 prizes

Part 4: Carnival Plan

8. Show an area model or partial products for one multiplication.
Answers vary.

Extension

$4,440; about $3.56 per student



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Answer key · Advanced KEY

Part 1: Getting Everyone There

1. How many buses are needed?
57 buses

2. Write the division and explain the remainder.
2,735 ÷ 48 = 56 R47; the 47 extra students need one more bus.

Part 2: Ticket Sales

3. Estimate the total number of tickets.
about 65,000

4. Find the exact total.
60,720 tickets

5. Is your answer reasonable? Explain.
Yes, it is close to the estimate.

Part 3: Prize Bags

6. How many full prize bags can be made?
186 bags

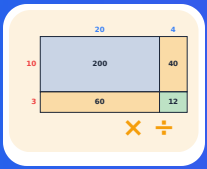
7. How many prizes are left over?
0 prizes

Part 4: Carnival Plan

8. Show an area model or partial products for one multiplication.
Answers vary.

Extension

$10,545; about $3.86 per student



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Worked teacher example (Standard, Part 1)

How many buses are needed?

24 buses

Write the division and explain the remainder.

1,248 ÷ 52 = 24 R0; no extra bus is needed.

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.