

Tally, Graph and Ask

GRADE 2

MATHEMATICS

D1.2

D1.3

A two-way tally table with a missing box can still be finished, because every row has to add up to its total. Fill the gaps in the tally table below, then use it to answer the questions.

What We Bought This Week

Day	Stickers	Pencils	Row total
Monday	HHH III		15
Wednesday		HHH IIII	14
Friday	HHH I	HHH I	

Source: our class store tally chart

PART A: FILL THE GAPS

- 1. Monday's pencils: _____.
- 2. Wednesday's stickers: _____.
- 3. Friday's row total: _____.

PART B: CHECK IT TWO WAYS

- 4. What is the pencil column total, and how does it compare with the sticker total?

SHOW YOUR WORK

Answer: _____

- 5. How many purchases were there altogether? Check your answer in two different ways.

SHOW YOUR WORK

Answer: _____

6. A classmate says more things were bought on Monday than on any other day. Is that right?

Answer: _____

7. How many more purchases were there on Monday than on Wednesday?

Answer: _____

PART C: WHICH QUESTION NEEDS TWO?

8. Which of these questions needs a two-way table to answer?

- ☐ A Were stickers more popular on Monday or on Friday?
☐ B How many stickers were bought in total?
☐ C How many purchases were there in the week?

9. With one square for each purchase, the tallest bar on a graph of the three day totals would be:

- ☐ A 15 squares ☐ B 41 squares ☐ C 12 squares

PART D: GRAPH THE THREE DAYS

10. Draw a bar graph of the three day totals in the frame, one row for each day and one square for each purchase. Give the graph a title, label each row, and write where the numbers came from.

TITLE _____

WHERE THE NUMBERS CAME FROM _____

PART E: ASK YOUR OWN

11. Write a question about your class that would need two pieces of information to answer. Say what two things you would tally, who you would ask and how you would record each answer, then sketch the table you would use to collect them.

PART F: ORGANIZE AND CHECK

12. The list below shows twelve purchases, day by day. Draw one tally mark for each purchase in the tally table, fill in every total, then check that the row totals and the column totals give the same grand total.

What Was Bought Each Day

Day	Purchases, in order
Monday	sticker, pencil, sticker, sticker
Wednesday	pencil, pencil, sticker
Friday	sticker, pencil, sticker, pencil, pencil

Source: we watched and recorded them

Our Tally Table

Day	Stickers	Pencils	Row total
Monday			
Wednesday			
Friday			
Column total			

1. 7
2. 5
3. 12
4. 22 pencils against 19 stickers, so 3 more pencils than stickers.
5. 41. Adding the row totals 15, 14 and 12 gives 41, and adding the column totals 19 and 22 gives 41 as well.
6. Yes. Monday had 15, which beats Wednesday's 14 and Friday's 12.
7. 1 more, because Monday's row total is 15 and Wednesday's is 14.
8. A) Were stickers more popular on Monday or on Friday?
9. A) 15 squares
10. Three rows, Monday 15 squares, Wednesday 14 and Friday 12, one square per purchase, each row labelled with its day, a title such as "Class Store Purchases This Week", and a source line such as "from our class store tally table".
11. Answers will vary and must name two things, for example which classroom job a student has and whether they saved or spent that week. The plan should say who is being asked and how each answer gets recorded, such as one tally mark per classmate interviewed. The sketch should put one thing down the side and the other across the top, with a box for every combination of the two.
12. Monday 3 stickers and 1 pencil for 4, Wednesday 1 and 2 for 3, Friday 2 and 3 for 5. The sticker column is 6 and the pencil column is 6. Rows give $4 + 3 + 5 = 12$ and columns give $6 + 6 = 12$, so they agree.

TEACHER NOTES

Extension beyond the grade-level expectation: Part A works backwards from row totals to missing cells, and Part B question 2 asks for the same total by two routes, which is how students learn that a two-way table has to agree with itself. Part D is the D1.3 display work, so mark the title, the labels and the source line as well as the bar heights. Part E asks them to design a data question and a collection plan rather than answer one, which is the D1.2 collecting half.