LESSON MAKER PRO

Matrix Moves

Organize data and find what the numbers show.

HIGH SCHOOL · A2S.NQ.B

A2S.NQ.B "Matrices are a useful way to represent information."

NAME _____ DATE _____

ROWS AND COLUMNS

The number cells in a table can form a matrix. Rows run across, columns run down, and labels tell you what each entry counts. When you write a matrix on one line, use commas between entries and a semicolon between rows.

WORKED EXAMPLE

The table shows items sold at a school market. Write the number matrix with rows Pins, Patches and columns Friday, Saturday. Then find how many patches were sold on both days.

SCHOOL MARKET SALES

Item	Friday	Saturday
Pins	14	17
Patches	19	21

1. Write the number cells in row order: [14, 17; 19, 21].
2. Find the Patches row: 19 and 21.
3. Add the two entries: 19 + 21 = 40.

Answer: [14, 17; 19, 21]. The market sold 40 patches.

PRACTICE 6 problems

1 How many team games were played in the arcade?

GAMES PLAYED

Game	Solo	Team
Arcade	5	8
Puzzle	3	6

ANSWER _____

2 How many rows and columns are in the matrix of number cells? Do not count the labels.

SHOP ORDERS

Item	Online	In Store
Stickers	4	10
Keychains	2	12

ANSWER _____

3 How many pop songs were played in all?

SONGS PLAYED

Genre	Morning	Evening
Pop	6	5
Indie	4	8

ANSWER _____

4 How many students attended either club on Thursday?

CLUB ATTENDANCE

Club	Wednesday	Thursday
Art	3	8
Robotics	6	4

ANSWER _____

5 Which snack sold more in all, and how many more sold?

SNACK SALES

Snack	Before School	After School
Fruit	5	6
Chips	8	4

ANSWER _____

6 Write the 2 by 2 number matrix with rows Monday, Tuesday and columns Tees, Hats.

MERCH SALES

Day	Tees	Hats
Monday	3	5
Tuesday	6	2

ANSWER _____

APPLY IT Show your work

1 Two clubs sold tickets for a school concert. How many tickets did the dance club sell across both days? How many more was that than the drama club sold?

CONCERT TICKETS SOLD

Club	Friday	Saturday
Dance	12	16
Drama	8	10

ANSWER _____

2 At a school gaming tournament, two teams earned points in two rounds. How many points did they earn together in round 2? Which team earned more points in that round?

TOURNAMENT POINTS

Team	Round 1	Round 2
A	15	22
B	18	24

ANSWER _____

CHALLENGE One step up

The art and music groups each sold tickets for a show and a film night. Combine their sales into one matrix with rows Show, Film and columns Online, Door. Then state which event sold more tickets overall and by how many.

TICKETS SOLD BY GROUP

Group	Event	Online	Door
Art	Show	5	8
Art	Film	6	3
Music	Show	4	7
Music	Film	2	9

WORK SPACE AND ANSWER

Matrix Moves

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	How many team games were played in the arcade?	**8 games**
2	How many rows and columns are in the matrix of number cells? Do not count the labels.	**2 rows and 2 columns**
3	How many pop songs were played in all?	**11 songs**
4	How many students attended either club on Thursday?	**12 students**
5	Which snack sold more in all, and how many more sold?	**Chips, by 1**
6	Write the 2 by 2 number matrix with rows Monday, Tuesday and columns Tees, Hats.	**[3, 5; 6, 2]**

PART 2 · APPLY IT

1. **The dance club sold 28 tickets, 10 more than the drama club.** Dance sold 12 + 16 = 28 tickets. Drama sold 8 + 10 = 18 tickets, and 28 - 18 = 10.
2. **46 points; Team B earned more in round 2.** Add the round 2 entries: 22 + 24 = 46. Compare 24 with 22 to identify Team B.

CHALLENGE

[9, 15; 8, 12]. The show sold 4 more tickets overall.

Accept a correctly arranged matrix written with brackets or clearly labeled rows and columns. In the challenge, the show sold 24 tickets and the film night sold 20.